Antigo Construction, Inc. in

The following is the first in a series of articles and photos regarding Antigo Construction's involvement with a USAID project in Afghanistan to rebuild the Kandahar-Herat Highway, a 557 km (345 miles) stretch of road that connects the southern and western parts of Afghanistan. USAID is funding 326 km (202 miles) of this highway. George Shinners, president of the Antigo Construction, said: "Nothing we've done elsewhere compares to Afghanistan because of its lack of resources, isolation and security situation. Everything necessary to live and to work had to be hauled in over almost impassable roads, constructed in four desert locations and protected from extreme weather conditions and occasional Taliban attacks."

Shinners, who is no stranger to overseas work, had plenty of time during a recent flight to Moscow to answer all of our questions in detail. We think you will enjoy his story.

How did you get involved in Afghanistan?

We began receiving e-mails in early 2004 from Turkish, Indian, and South Korean contractors regarding a pavement rehabilitation project in Afghanistan, which specified that the PCC (Portland Cement Concrete) pavement was to be cracked and seated prior to an asphalt overlay. After receiving photos of the pavement from the Louis Berger Group (LBG), the American project manager, I questioned whether the pavement could be cracked and seated due to its very irregular shape. I recommended that LBG consider rubblization to insure more uniform sized pieces in the broken pavement and to eliminate the sharp edges in the existing pavement, caused by the many thousands of cracks, joints and voids, which in turn cause reflective cracks in an asphalt overlay.

In June 2004 LBG arranged for me and several LBG pavement engineers to drive the 557 km (345 miles) from Herat to Kandahar to inspect the pavement. The trip took 14 hours because we had to leave the pavement and drive on the sand trails about a third of the distance. This inspection led to the decision that Sections 2 through 5 (km 116 to 537), which were the responsibility of LBG, would be rubblized. (Editor's note: Rubblization is a cost-effective means of rehabilitating deteriorated concrete pavements. The concrete is broken into pieces, and then is overlaid with asphalt. The rubblized pavement becomes a strong but flexible base material which is left in place and provides the following advantages: the existing pavement does not have to be trucked off to a landfill; the



asphalt paving begins immediately behind the rubblizing operation which eliminates delays. The required thickness of new pavement is reduced and the rubblization/HMA overlay procedure has proven to be more cost effective than removing and replacing bad joints and cracked slabs.)

2. What made you decide to do the project?

My interest in this project was four-fold. First, I wanted to do what I could to ensure that the rubblization rehabilitation procedure was chosen because I was certain that it provided the highest probability of long-term, high quality pavement performance. Second, if Antigo was chosen to rubblize this pavement it would be involved in the most significant rubblization project to date based upon its 441 km length (273 miles), short twoyear construction schedule, and extremely remote location. Third, it would be Antigo's largest, by far, rubblization project. Finally, I thought it would be an opportunity for me, personally, to make a small difference in the overall USAID mission in Afghanistan.

3. What costs and profit were involved in this project?

Antigo was chosen from three contractors to perform all the rubblization for the following contractors:KolnatJVfromAnkara,Turkey;Gulsan-Cukurova JV from Istanbul, Turkey; and BSC/C&C JV from Delhi, India. After some trade-offs, Antigo was paid on average the same price for rubblizing as it receives in the United Sates. Antigo's added costs included the following: transported four MHB machines* to and from either

Turkey or Pakistan; provided MHB operators to train Turkish and Indian operators; provided \$120,000 of maintenance supplies and spare parts; provided a full-time project manager/ maintenance supervisor and arranged for me to be on the several jobs more often and longer than anticipated.

The contractors provided operators, fuel and grid roller, which somewhat compensated Antigo for added costs.

(*Editor's note: Antigo created an affiliated company, Badger State Highway Equipment Inc. in 1988 to manufacture a line of much improved concrete breakers, which includes the MHB Badger Breaker*.)

4. Who paid for food and lodging?

Food and lodging were provided at no cost, but were pretty basic at first. My first lodging for several months in the winter of 2004 consisted of a converted 40-foot ocean shipping container. There was no hot water, a small electric heater and only occasional electricity (thus no heat). Accommodations improved over time as prefabricated cabins, and a proper boiler and power generator were installed. As the LBG personnel arrived in work camps, we were able to use their spare cabins, mess halls and Internet service, which helped us considerably.

How did you handle security for yourself and Antigo employees?

Security was all important. We followed established procedures or risked serious

E-mail from George Shinners to the Security Manager of one of the Antigo projects.

"Paul tells me there have been some killings in Section 2 and 3 lately. I was planning on going back the 23rd. Have you any details?"

According to the USAID Web site (www.usaid.gov), many of Afghanistan's institutions and much of its infrastructure have been destroyed as a result of neglect and unrest. USAID is building and refurbishing infrastructure to boost economic growth and agricultural yields, connect rural Afghans to services, and provide facilities, education, healthcare, a civil society and local governance. E-mail to George Shinners April 7, 2006 from the Security Manager of the project, in which he discusses the timing of George's next visit to the project.

"A Turkish equipment operator was killed at km 234, a culvert site, by two rocket propelled grenades followed by small arms fire and the equipment was burned. Dieter was killed by a command detonated improvised explosive device driving through Delaram in a long convoy. It was a targeted hit. As far as your timing, it depends what you want to see. Rubblizing complete in Section Five. Section Two may complete July/August. Spring and summer always brings increased enemy activity. The weather is perfect right now. The longer you wait, the hotter and more uncomfortable it will get. Remember,

the 120-day winds start in June. In my opinion, you've missed your window."

BACKGROUND ABOUT



consequence. An American security company, USPI, was responsible for the overall security program. Their camp security managers in turn each supervised about 200 Afghan militia supplied by the local Afghan commander.

Four to eight armed security guards traveled with us whenever we left camp to go to the work site or from camp to camp. After the first few days of this arrangement, it was obvious that some of the guards were not very well trained in how to secure an area. I decided it was necessary that our Afghan driver, my manager and I be armed at all times as an added precaution.

Tell us some brief details about employees involved in the project and the project timeline.

Antigo is rubblizing four of five sections of the highway, or 265 miles. Section One is still in the planning stages. The first job, Section Four, began in November 2004. Two Antigo operators joined me on site for three weeks to organize supplies and train several employees from the Turkish contractor who operated two MHBs to complete 100 km (62 miles) of rubblizing work in November 2005. This section is now paved. The second job, Section Three, began in February 2005. Two Antigo operators were onsite with me for two weeks to train several Turkish contractor employees who then operated two MHBS to rubblize 124 km (77 miles) of road by October 2005. This Section is now paved. The third job, Section Five, was begun by the India-based contractor in May 2005. Antigo's project manager and I trained several operators who were able to rubblize 75 km (46 miles) of road by the time winter weather shut the asphalt paving operation

down in November 2005. The final 26 km (16 miles) were rubblized in March and April 2006. The fourth job, Section Two, was begun in March 2006 and should be rubblized by the end of June 2006.

7. Tell us about the project cost.

Sections Three through Five are being financed by USAID at a construction cost of \$175 million. Section Two is being financed by Saudi Arabia at a construction cost of \$60 million. Japan is financing Section One, but details for this section are not available.

8. How much were workers paid?

The Turkish and Indian skilled workers were paid a premium due to the nature of their jobs but worked very long hours for two or three weeks straight before having a day off. I'm not certain exactly how much the Turkish workers earned, but I believe an operator earned about \$1,200 (equiv.) per month. The Indian workers were basically doubling their salary in India, plus they did not have to pay for their food and lodging, plus they are eligible for completion bonuses, which are on a sliding scale. The bonus will equal about six month's pay. The average wage for unskilled labor in Afghanistan is U.S. \$40 month. The Afghan workers and security guards earned about twice their normal wage, but worked from daylight to dark seven days per week for several weeks before having a day off. There really is not much else to do while in camp. The Turkish and Indian management and technical staff worked similar hours but did get a week or two of vacation twice a year.

Stay tuned for Part Two in which Shinners will talk more about security incidents, the language barrier and more.

www.antigoconstruction.com

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George Shinners, president Matthew Shinners, secretary Christopher Shinners, vice president Jason Jansen, operations manager

The company has 44 fulltime employees located in Antigo, Wisconsin; Boise, Idaho; and Oxford, England. The company has handled thousands of jobs in the United States and Canada (in 44 states and three provinces so far) and will work anywhere in the world where there is concrete pavement to be broken.

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Antigo Construction, Inc. in

Q. How are things going now (in June 2006) based on the recent

Ethiopia

Russia

Middle East

upsurge in violence?

Somalia

A. There is definitely more concern in areas north of Kandahar than last year. Travel by car is not recommended, which led me to cancel a visit scheduled for early June. We finished rubblizing June 26, with 265 miles completed in 18 months. In a side note, our rubblizing technology on the Kandahar to Herat Road was recently selected as the outstanding construction methodology in this year's worldwide competition by the International Road Federation. Strange that it has to happen in Afghanistan, but it definitely will give rubblization with an asphalt overlay widespread attention.

Q. Tell us about security incidents.

A. While there have been a number of serious security incidents on the jobs we were involved in, none of our workers were ever directly involved. Of more concern were traffic accidents – heavy traffic consisting of grossly overloaded trucks (200,000 pounds gross), buses, taxis and private vehicles that drive down the gravel temporary roads with little regard for safe-driving rules. Our vehicle was sideswiped twice by trucks passing where they shouldn't – quick action by our driver prevented what easily could have been a deadly accident. A traffic accident in Section 3 caused the death of our South African

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Since the first-part of this series ran in our spring issue, violence in the region has escalated substantially. However, luckily, Antigo is done with work in the region until next year when they begin a new project.

Antigo Construction President George Shinners, a specialist in this type of overseas work, answered the following questions. We are grateful for his interest in sharing his unusual story with our readers. – NHB

security manager and the serious injury of our American project manager. In March 2005 an Afghan commercial airliner flying from Herat to Kabul flew into a mountain during a sudden snowstorm.

Among the dead were several very close friends from Section 4 including the American project manager, Turkish project superintendent and young Turkish engineer assigned to our rubblizing operation.

- **Q.** How did the workers feel about what they were doing? How did people you came in contact with feel about what you were doing for them in terms of fixing their road?
- A. The management staff clearly understood the importance of repairing the road. The hourly workers, both Afghan and ex-patriot, understood to varying degrees but were probably more appreciative of having a decent job and

having the opportunity to learn Western road building techniques. Through our interpreters' comments and the friendly way in which the local Afghans treated us, it was clear that they appreciated what was being done to reconnect them with the rest of Afghanistan and the surrounding countries, which were their traditional trading partners.

Q. How did you handle the language barrier?

A. The Turkish and Indian contractors for the most part understood English. They interpreted for us, or an interpreter assigned to a security manager helped. In other cases, an engineer or driver handled it. We also get by with a lot of sign language. For instance, we showed the operator physically how to operate the equipment. You can't show them the operator's manual, because it is in English, but you can show them the pictures.

Q. How was the process of performing the work different from a similar project that you performed in the United States?

 A. In the U.S. everything needed to perform our rubblizing work is readily available

 equipment, operators, fuel, housing, trucks, construction materials and secure working conditions. In Afghanistan we started with



George Shinners (fifth from the left) with some of the many people he has met and worked with in Afghanistan.





According to the USAID Web site (www.usaid.gov), many of Afghanistan's institutions and much of its infrastructure have been destroyed as a result of neglect and unrest. USAID is building and refurbishing infrastructure to boost economic growth and agricultural yields, connect rural Afghans to services, and provide facilities, education, healthcare, a civil society and local governance. BACKGROUND ABOUT

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nothing – the roadway and work camps had to be demined, mobilization of equipment took at least three months, work camps as well as crushing, asphalt and pre-cast concrete plants had to be hauled in and erected, wells had to be drilled, our supplies and spare parts had to be delivered to the work camps, operators had to be trained, security "shut-downs" stopped work for days, and the work day was reduced by as much as three hours because travel from the camp to and from the work site was only allowed during daylight hours.

Q. What unique aspects of the process did you appreciate the most? The least?

A. I appreciated the opportunity to introduce the rubblizing procedure to a diverse group of pavement design engineers, paving contractor managers, machinery operators and U.S. and Afghan government officials. Also, I enjoyed the opportunity to use my 40 years of road building experience to participate in the decisions of the project managers to modify the construction procedure to take advantage of available local materials and to overcome changing site conditions and frequent shortage of equipment.

The unique aspects that I wish did not exist were the difficulty at times of communicating the proper rubblizing procedures to both managers and hourly employees, due either to language barriers or the inability or unwillingness of some managers to understand and accept the mechanics of the rubblizing procedure.

Q. What out of the ordinary costs and procedures were involved in performing this type of work in Afghanistan? **A.** The most unusual procedure involved the months of discussions and e-mails necessary to prepare contracts and the time and effort it took to prepare the breakers and assemble and crate up the \$120,000 in supplies and spare parts going with the breakers. Once the paperwork was signed, we entered phase two, a three-month mobilization of equipment from Antigo to the job sites. Antigo hauled the breakers to Baltimore where they were put on ships to either Turkey or Pakistan. The ocean voyages took about 45 days and customs clearance another 10. The truck haul from western Turkey crossed Iran and arrived at the northern Afghanistan city of Herat after a month. The trucking time from Karachi took almost as long. The one-way transportation cost was roughly \$30,000 per breaker.

Other unexpected costs and procedures included cash flow issues due to a four-month payment process, lack of maintenance awareness on the part of the Turkish and Indian operators, which led to added maintenance costs, and the extensive management effort required to ensure that the rubblization was done properly. I had not anticipated the need to hire a full-time manager. In addition, I was in Afghanistan on the jobs 10 times for a total of 130 days between November 2004 and November 2005. I will probably return twice between April and the end of June of this year when the fourth section should be rubblized.

Stay tuned for the final part of these series in which Shinners will talk about whether he would recommend this type of international construction experience to other contractors. The company has 44 fulltime employees located in Antigo, Wisconsin; Boise, Idaho; and Oxford, England. The company has handled thousands of jobs in the United States and Canada (in 44 states and three provinces so far) and will work anywhere in the world where there is concrete pavement to be broken.

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Part Three



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FALL | 2006

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Since the first-part of the series ran in our spring issue, violence has escalated and some regions remain extremely dangerous. Antigo has completed four projects in the region, but will likely do one more next year. In this final part, George Shinners, president of Antigo Construction, talks about aspects of Afghanistan that we don't hear about very often in the news.

Regarding the series of articles, Shinners said recently: "Your articles have prompted many comments and raised many questions from the Michigan and Wisconsin pavers who obviously read the article. Haven't had any volunteers to return with me, however."

But we are sure everyone is wishing him the best of luck next year and far into the future.

- NHB

Q. Would you recommend this type of work to the average U.S. contractor?

Eavo

A. I could recommend this experience to a "niche" contractor like Antigo whose work requires very specialized equipment not available locally and which requires few, if any, long-term employees on-site. In addition, the contractor would most likely need to have considerable management time available and be comfortable working in remote places under strange working conditions. That being said, a project of this type could be the most rewarding project a contractor will accomplish in his career. It certainly has been the most exciting and rewarding

Middle East

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Antigo Construction, Inc. in Afghanistan Continued from pg. 47



project in my 40-year road contracting experience.

Q. What are the core aspects of the work that someone interested in pursuing it should be aware of before proceeding? What is the first step for someone who is interested?

- A. Iwould not have become involved in this project without the assistance and assurance offered by the various managers of the Louis Berger Group. You need a "partner" who will cut through the inevitable red tape and who will ensure that you will be paid for work performed. Companies involved in international construction management can be found on various U.S. government or construction association websites if someone is interested in exploring overseas work opportunities. USAID is very active in this area.
 - **Q.** What did you witness in Afghanistan in terms of people, places and everyday life that you would say is worth remembering for a lifetime?
 - A. The Afghans in the remote areas I am most familiar with are remarkable people. They are shy, but friendly and fun-loving once they get to know you. They are hard working, but work mostly with hand tools, and they live a very simple life, which is very much family-oriented. The men are everywhere and seem to concentrate on plowing the fields along the river valleys, maintaining their ancient irrigation systems, constructing their mud-walled buildings and doing craftwork, such as carpentry, metal fabricating, masonry work, as well as mechanical repair of the mostly worn out vehicles passing through their villages.

The women are not seen as often but do manage, along with their children, the grazing of their sheep and goats. They help harvest the farm crops and are very adept at weaving and other handcrafts.

The children are around much of the time and can be seen with their wheelbarrows moving farm crops or household supplies. They love to one-leg wrestle, race wheelbarrows, fly kites, and goof around like any kid, but they also assume work responsibilities at an early age. Formal schooling is minimal but when five of us pitched in to have a four-room, mud-walled, metalroofed school built near one of the work camps, 60 boys and 40 girls eagerly signed up for classes. Cost of the school, using local labor, was around \$16,000!

Prior to my arrival, these fellows build a health clinic, which was staffed by off-duty American military personnel. This is the story we don't hear about too often.

Most of the farm products and living necessities are moved either by wheelbarrow, donkey or camel – a few old Russian army trucks and small farm tractors show up at times. Oxen are used to plow the fields and

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Antigo Construction, Inc. in Afghanistan Continued from pg. 74

thrash the grain. The grain is then loaded on donkeys to be hauled home. How long ago was this the norm in our country?

Living conditions are difficult from my viewpoint. Most villages consist of a few dozen mud-walled houses with wood heat (it can be close to zero in winter but 140 degrees in the summer) and without electricity, running water or sanitary facilities. Schools and medical facilities are primitive and often some distance away. The sections of repaired road open to traffic have already lessened these problems.

I am also familiar with the large city of Herat in the northwest (close to Iran) and the capital city of Kabul in the northeast. They have both shown considerable progress in the last year and half. Local roads and airport facilities have been improved, roadway litter has been cleared away, hundreds of boys and girls are seen going to school as early as 6 a.m.; buildings severely damaged during 25 years of war are being repaired and multi-story new buildings are being constructed. Hundreds of retail shops and small manufacturing businesses have appeared, as well as office buildings, western-style hotels and restaurants, service businesses and government service facilities. Everyone has a cell phone!

Afghanistan will need out-of-country financial and technical assistance for some time, but progress is definitely being made. Public services are steadily being restored, countrywide elections have been held, schools are re-opening and employment is increasing. Most importantly, their country, with the exception of the area around Kandahar near the Pakistan border, is rid of a 25-year war. The agricultural assistance programs necessary to eliminate heroin production must be successful before we can say that Afghanistan has been resurrected.

Q. Are you planning to perform work in any other countries that are similar to Afghanistan in terms of political instability and danger?

- A. We have signed a contract to rubblize 1.4 million square meters of runways, taxiways and aprons at the Jeddah, Saudi Arabia Airport. Work will begin in January 2007 and take two years to complete. While much more stable than Afghanistan, Saudi Arabia does present the same logistical challenges.
 - Our British company is partnering with a Russian contractor to do highway work in Russia and we continue to work with an American-Chinese joint venture which has successfully been operating our Badger Breakers[®] for several years.

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