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**Haul Trucks/Articulated Trucks/Dump Bodies**

Operations Manager Mark Landry and Sales Manager Don Asack of  
Aggregate Industries Northeast Region, Saugus, MA



# Aggregate Industries Northeast Region – Success in New England

As each section of Boston's Big Dig opens to the public, the management and staff at Aggregate Industries' Northeast division smiles with satisfaction.

And smile they should. Over the past ten years, the Saugus, MA-based aggregate, concrete and asphalt Northeast division supplied over half of the concrete and asphalt required for the massive \$14.6 billion Central Artery/Bridge project.

The task was a formidable one – even for the nation's seventh largest aggregate producer.

Creativity and flexibility helped Aggregate maintain tight product specs and demanding schedules. Night pours helped avoid Boston's choking traffic. On-site dispatching kept trucks steadily moving. The company disassembled a concrete truck, lowered it by crane to the floor of the Ted Williams tunnel sections, and reassembled it to shuttle concrete from delivery trucks to remote pour sites. Crews frequently worked 24-7 producing, dispatching and delivering concrete and asphalt for the extensive bridges, tunnels and highways. The Massachusetts Turnpike Authority described the Central Artery/Tunnel project as "the largest, most complex and technologically challenging highway project ever attempted in American history."

An April 2003 Washington Post article tried to relay the magnitude of the project to their readers explaining that the concrete poured would construct a three-foot by four-inch sidewalk from Boston to San Francisco – three times.

And now that the Big Dig nears completion Aggregate Industries looks to the future.

Throughout the Big Dig, the company never lost site of two facts – one, the project would eventually end and two, the company's regular customers are the foundation of their business. To that end, Aggregate Industries worked hard to keep those regular customers fully satisfied even during the busiest days supplying the Big Dig.

According to Don Asack, Northeast Region Aggregate Division Sales Manager, it was a challenge the company successfully met.

It is that attention to the big picture – people, products and service – that has moved Aggregate Industries to the forefront in the Northeast.

The company bought its first New England operation in the mid 80's. Over the next 15 years, they purchased recognized regional names like Trimount Bituminous, Simeone, McNamara, Middlesex, Concrete Service, Lorusso and Wakefield Ready-Mix. Today, the company operates 8 hard rock quarries, 21 asphalt plants and 23 concrete plants in eastern New England.

Buying existing businesses with various products, equipment and procedures posed

a challenge. Aggregate Industries needed to offer its customers consistent product and service throughout its operation.

Northeast Division Aggregate Division Operations Manager Mark Landry was up for the challenge. Landry says that many of the changes were made easier as the company adopted new technology. "We started using the Internet and became more computer savvy," he explains.

Using Envoy, management software from UK-based Entropy International, there is now an open line of communication between the US divisions.

"We have a complete equipment list for each operation, the site manager's name and contact information. It enables us to standardize costs and to develop standardized production and sales reports. We have also developed a standardized system to track Health and Safety incidents," he continues.

## SAFETY

Safety is the number one issue at Aggregate. Virtually every meeting – from weekly toolbox meetings to monthly divisional meetings – begins with safety.

"Safety policies and PPE's have become a major focus over the last three years. Safety vests, hardhats, goggles and steel-toed shoes are mandatory for all plant employees," explains Asack.

"Each plant manager is responsible for plant safety. We now have a safety officer for each division; they report directly to corporate."

In addition to requiring PPE, the company has instituted mandatory hazard training for all employees. Facilities have been modified to protect workers. Wider catwalks, stairs to replace ladders, sturdier railings and improved equipment guards help prevent accidents.

## NEIGHBOR RELATIONS

Employee safety is matched with a corporate concern for neighbor relations. Most of Aggregate Industries' Northeast operations are located in densely populated suburban Boston. The standard issues of noise, dust, and traffic are a great concern.

The company's Littleton, MA 83-acre quarry and concrete plant is nearly surrounded by \$400,000 homes. The risk of irate neighbors is great.

To prevent problems, the company takes a proactive approach.

Several quarries hold a Community Day, inviting neighbors to visit the quarry and learn about the company, its products and its procedures. The day includes bus tours of the quarry and plant, hamburgers and hotdogs, and even clowns. The event draws thousands of interested neighbors and public officials

Littleton provides a 70-ton haul truck for the community's annual Touch a Truck Day, enabling children to climb stairs and sit in the truck's cab. Taunton supports a

local Kids Care Day with mini hardhats and coloring books.

Like most quarries, blasting is a major issue. Calls to neighbors prior to every shot (in addition to the fire and police departments and other government offices) helps avoid confrontations. Aggregate Industries establishes limits far below state standards for frequency, peak particle velocity and air blast for their blasting companies. The changes often require smaller, more frequent shots, but the added cost is negligible against the cost of irate neighbors. Simply timing shots to avoid lunch hours and after school times minimizes problems. Seismic monitors, both fixed and portable, record every shot. Envoy's complaint component catalogs each shot providing valuable information in the event of a problem.

Other steps such as dust suppression (water trucks and nozzles on all equipment), improved screening, well-designed berms, regulated truck flow and attractive fencing and landscaping all contribute to a positive community image.



"When I'm doing my job well, everything runs smoothly and it looks like I'm not doing anything," says Steve Landry, Main Plant Operator.

## PRODUCTION

With safe employees and content neighbors, Aggregate Industries can focus on the business of producing aggregates.

Landry's job is to help each plant manager maximize production efficiencies.

Landry compared each site's equipment to its production levels and sales. Using AggFlow 5.0 he analyzed each of the plants. He moved equipment within a production line or even between quarries to optimize flows. The software also helped him justify new equipment purchases where necessary.

"Over the last three years we purchased six Nordberg HP400 cone crushers to replace some inefficient and outdated equipment. It helped us minimize our shoplifters," says Landry with a laugh.

He explains, "Everything that passes through a screen is like money in the cash register. Overs that pass through the crusher a second time are like shoplifters stealing your profits."

In addition to improving production efficiency, the combination of Envoy and AggFlow enable Landry to work toward standardizing equipment. Standardized



Polydeck Sales Manager shows the high percentage of open area on a Polydex polyurethane panel. Aggregate Industries found they had increased production, less blinding, and extended life with Polydex - a savings of fifty percent over traditional wire screens.

equipment simplifies parts inventories and maintenance operations.

"Hard rock is tough on equipment. We have to perform maintenance far more frequently than in a limestone quarry," he states.

"One of our quarries needed to replace the liner in his HP cone. Another quarry had a bowl and mantle onsite. The one quarry shipped the spare parts enabling the second quarry to pour the liner the same day. The next day they replaced the liner in just two hours. We reduced our downtime from one day to just two hours."

The company is also working toward standardizing its rolling stock as well.

"Standardizing equipment means mechanics no longer have to be familiar with multiple makes and models. And again, it means we can limit the number of parts we need to stock," says Landry.

Working with New England-based Southworth Milton, Aggregate Industries is converting its fleet of haul trucks and loaders to Caterpillar equipment. Recent purchases include two 775E seventy-ton haul trucks and a massive 990G shipping loader. Landry cites equipment reliability and Southworth Milton's service as factors in the decision to go with Caterpillar.

Standardization is not limited to crushers and rolling stock. Landry is working toward standard screening. He recently converted Littleton from wire-cloth to polyurethane and rubber screens from Polydeck - a move he plans to repeat in the other quarries in his region. The decision to go with synthetic screens was based on Landry's own trials. When he saw his efficiencies improve and maintenance costs fall, he made the switch.

In addition to maximizing profits, the drive to improve plant efficiency is precipitated by the New England's high labor costs. Unlike many of its competitors, Aggregate Industries employs union labor. The unions not only dictate pay scale, but in some cases limit the jobs individual employees can perform. Efficient production helps offset higher labor costs.

## LITTLETON QUARRY

Originally purchased from Middlesex Corporation in 1999, the Littleton, MA quarry is an example of Aggregate Industries' commitment to people and production. With barely half of the quarry footprint developed, the company is slowly and carefully expanding the quarry floor. With over 100 million tons of reserves, the operation is worth the time and the investment.

After each shot, the crew goes to work. Any oversize is quickly reduced with a 10,000 NPK hammer mounted on a Cat 350 excavator. One of the company's few remaining non-Cat loaders loads a pair of Cat 775E haul trucks that draw 70-ton loads to the primary hopper. 10-inch minus passes through the grizzlies and overs are crushed in a Cedarapids 4248 jaw. 2800' of conveyor (which replaced three haul trucks) moves aggregate to an 80-ton hopper and FMC feeder. A Cedarapids triple-deck screen feeds a Cedarapids 66" cone. Depending on demand, the bottom screen produces 3/16 or 1 1/2-inch minus dense pack (sold as Starpak). An 80-ton 4-inch minus surge pile supplies three feeders to three 5 x 16 Hewitt Robbins screens. A Nordberg 1560 Omni cone and a Nordberg HP400 SX paired with Cedarapids 6 x 16 screens produce 1-inch, 9/16-inch, 7/16-inch, 1/8-inch washed stone. Fines pass through newly installed Krebs Cyclones with Linatex 1036 liners. 200-400 mesh

material is sold as soft sand - for swimming pool and landscape applications. The remainder is pumped to a settling pond. According to Landry, installing the separator has cut pond maintenance related disposal costs by fifty percent.

## FUTURE GROWTH

Both Landry and Asack see continued growth for the Northeast Division.

Under Jim Prendergast, Aggregate Division General Manager, the region has developed a strong sense of cooperation. Sales and production meet bi-weekly to compare projected sales with product inventory, allowing each group to better focus their efforts. Plant managers perform cross audits of other plants, sharing their expertise and positive feedback. Safety meetings including employees and management keep the company striving for a better work environment. Continued communication among regions shares best management practices and improves each operation.

Landry plans to continue improving primaries and surge to raise tonnage. Increased use of video cameras, belt scales and bindicators will help monitor and improve production.

Whether at the quarry, at the concrete or asphalt plant, or at the jobsite, Aggregate Industries' Northeast Division has a proud past and a bright future. They have earned the right to smile.

## Polydeck Screens Raise Aggregate Industries' Tonnage and Reduce Costs

Could polyurethane screens truly be as good as Polydeck claimed?

That was the question Aggregate Industries' Northeast Region Operations Manager Mark Landry had to answer.

Testing it onsite at Aggregate's Littleton Quarry, he soon had his answer - and the answer was yes. The tests proved so convincing that Landry converted all but the bottom deck of one screen to Polydex® Modular Screen Systems.

"The biggest criticism against synthetic screens is the loss of open area," explains Polydeck Screen Corporation Sales Manager Marc Livallo.

"We developed a support frame that enables us to match the open area of any screen media."

Landry strongly agrees with Livallo's statement, "We found we actually gained open area and tons per hour with Polydex. Our former screens were arched in the middle. Material slid from the center to the outside. We weren't using the total surface area."

Additionally, Landry reports a fifty percent reduction in annual screen costs.

"Over the last four years, we have been switching our plants from cloth to Polydex. First were our high production, high wear plants."

Not only was wear reduced, but so was routine maintenance.

"Our Taunton, MA plant used to have to shut down routinely to clean the bottom deck screen. We don't have that problem with Polydex," says Landry.

Polydeck's non-blinding panels were a definite advantage. Dust suppression to minimize neighbor complaints and the demand for washed stone meant virtually everything was wet resulting in frequent blinding. Blinding has been all but eliminated with Polydex.

Repair is another advantage of the polyurethane screen. One employee can easily repair a hole by replacing a single 12" x 12" or 12" x 24" panel.

Modular construction also enables plant managers to blend screen sizes to improve product gradation. They also discovered that Polydex synthetic screen panels help deaden sound as aggregate drops onto the screen - a major plus with the neighbors.

For Aggregate Industries, the numbers do not lie. A higher initial cost is greatly offset by greater screen life, reduced screen maintenance and higher production. The Northeast Division's goal is to convert 90 percent of the company's screens to Polydeck.

For more information on Polydex Modular Polyurethane, Rubber and Specialty Screening Systems, contact Polydeck Screen Corporation, 175 Davis Chapel Rd., Spartanburg, SC 29307, 864-579-4594 (ph), 864-579-2819 (fax) or online at [www.polydeckscreens.com](http://www.polydeckscreens.com)



# Are You Buying A Screening Product or A Total Screening Solution?

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**Side-tensioned Urethane**  
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Analyze your  
operating  
parameters.



Evaluate screen panel  
options.



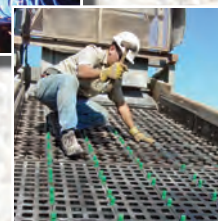
If necessary, create  
new design tooling.



Inspect for quality  
and consistency.



Optional customized  
frame design.



Monitor  
installation  
and provide  
after-sale support.

At Polydeck, our goal is not to make a sale and dump a bunch of screen panels at your plant site. Our goal is to first understand your production needs, the characteristics of the material you are mining and capabilities of your equipment. We then match that information with our selection of more than 1,000 screen panel designs to help you achieve your desired result. With options like our Maxi high open area design, our non-blinding Flexi rubber screens, our patented PolySnap® fastening system and our incredibly versatile PipeTop II™ frame system, you will meet your production goals...guaranteed.

We follow up with delivery, and installation and after-sale support that is unmatched in the industry. We call it our Total Screening Solution. That's what you can expect from Polydeck...every time.



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