

Reading & Northern Railroad Named Regional Railroad of the Year!



TABLE OF CONTENTS

KEEPING ON TRACK

Keeping On Track	P. 3
Building Bridges	P. 4-5
An Interview with Andy Muller	P. 5-7
RBMN Press Release: Railway Age Names R&N Railroad of the Year	P. 7
Regional Railroad of the Year Submission	P. 8
Nesquehoning Bridge Timeline	P. 9-19
A Towering Achievement	P. 20-33
Putting the Bridge to Work	P. 34
Making the Bridge Work for Customers	P. 34
Happy Birthday!	P. 35

COVER PHOTO Andy Muller Jr., after personally running the first train over the newly constructed Nesquehoning Bridge on February 4, 2020.

EDITORS JOLENE BUSHER • TAYLOR HAUPT ALL PHOTOS ARE THE PROPERTY OF THE RAILROAD UNLESS OTHERWISE MENTIONED. THIS MAGAZINE IS PROUDLY PRINTED ON RECYCLED PAPER.

When the dream becomes reality, it is time to honor the dreamer.

And lo and behold, as if in a fable, the world changed in the decade since we first thought we would have the funding to build the Bridge. Over the last ten years, especially the last And so this issue honors our owner/CEO Andy Muller Jr. Not three years, our relationship with Norfolk Southern changed only did he dream about constructing a massive bridge across and the need for the Bridge increased exponentially. NS asked the Lehigh River to connect our two divisions he willed that us to go interline, which allowed us to participate fully in dream into concrete and steel over the course of two plus all rate-making decisions. NS cooperated with our efforts to decades. pursue directional routing, which created a need to move traffic between our two divisions. And in its adoption of Like all great quests this tale has many twists and turns. There PSR, NS decided the Lehigh Line did not fit into its strategy were promises of funding that vanished like the morning and thus our Lehigh Line interchange should be closed. As a mist on the Lehigh. There were construction plans based result of those actions, and the steady growth of our business on availability of cheap steel that crumbled like a building through great service to existing customers, entrepreneurial on a foundation of sand. There were government permits industrial development and expansion into warehousing and that expired with regularity as soon as funds seemed to be transloading services, the need for an efficient north-south available. Through it all Andy kept on track. route from Reading to Scranton became essential.

Make no mistake, the bridge project was not a team project. As the bridge opens in 2020, we expect 25% of our total While it is true that there were many of us who dedicated traffic will NEED to use this route. countless hours to making the bridge a reality, there was only one person who believed the bridge was essential for our I cannot help but be amazed at Andy's foresight. NS just future. As Andy said many times over the years, no board of decided to stop using the Lehigh Line for trackage rights and directors in the world would approve this project. to terminate the Penobscot interchange in January. The Bridge opened February 4th.

Think about it. RBMN can run our two divisions as separate viable entities. The route Andy was piecing together had So the truth is Andy was more a seer than a dreamer. He NEVER been a service route in the history of railroading. saw what none of us could see. He knew that the future There had never been service between Reading and Scranton. would demand this world class connection between our two These were points on different railroads, serving different divisions. And he willed it into being. markets.

But Andy saw the value in connecting these railroads and communities. And even after he completed the phase 1 project, with the help of the Commonwealth and the DCNR, he still pursued a new bridge so the routing would be efficient and progressive.

BY: WAYNE A. MICHEL, PRESIDENT

Dreamer, seer, DOER, that's Andy Muller. And those of who are able to share in his amazing accomplishments are truly blessed.

Building Bridges

BY: JOLENE BUSHER, AVP REAL ESTATE

need to go back to those early days of the Reading & Northern.

Phase I - Connecting the Reading & Lehigh Divisions

Less than six years after the Reading & Northern purchased the Reading Cluster from Conrail we expanded our system with the purchase of Conrail's Lehigh Line between Nesquehoning at a point just south of Mehoopany, a distance of 98 miles. Now, the Reading & Northern had a network of rail lines as far south as Reading in Berks County and northward into Carbon, Luzerne, Lackawanna, and Wyoming Counties comprising over 320 miles at the time.

But the two parts of the railroad did not connect! Andy recognized the need for a connection in order for the railroad to operate efficiently and to become a regional powerhouse. So, he immediately went to work to make the connection.

At the same time as he was negotiating with Conrail to purchase the Lehigh Middle line, he accelerated discussions with the operator of an eighteen-mile rail line owned by Carbon County. The operator, the C&S Railroad Corporation, and the Reading & Northern initiated an informal partnership in the early 1990s in anticipation of negotiating trackage rights for the Reading & Northern to operate over the C&S line in Schuylkill and Carbon counties. This negotiation was completed the same month the Reading & Northern acquired the Lehigh Division, and in August 1996 Elizabeth Ahner, Vice President, and James Zurn, President, granted trackage rights to the Reading & Northern on behalf of the C&S Railroad Corporation. Those trackage rights were later approved by the line's owner, Carbon County, and the Surface Transportation Board.

Now, the impediment to what would otherwise be a continuous Mainline from Reading to Scranton was the Lehigh River. Andy needed a way to cross the water and unlike Moses he could not just raise a staff and divide the waters. He would need a bridge.

And there was, in place, a river bridge that had once been used for train traffic. But the bridge was in neglected condition and had no connecting track to the Main. "I remember looking at this bridge with Andy and wondering if secured plywood would be enough to make it work," Therman Madeira, Executive VP Special Projects, jokingly reminisced of the river bridge.

Before we could even begin restoring the structure we had to deal with an even bigger obstacle; the bridge was no longer owned by a railroad.

As with other old railroad right-of-ways, this river bridge, and an accompanying truss bridge, were acquired by the Commonwealth of Pennsylvania with the plan to eventually convert it to a pedestrian bridge as part of a Rails-to-Trails program. This bridge would connect the nearby tourist destination of Jim Thorpe to the Lehigh Gorge State Park.

In 1996, as we looked to this river bridge as a means to connect our two divisions, we had two big problems. First, how would we get permission to operate over the bridges. And second, how would we pay for their restoration to rail service.

Andy went to work to persuade elected officials across Pennsylvania of his vision that a railroad bridge connecting the Reading & Northern's two rail divisions would drive local industrial development, increase local job opportunities, and provide an opportunity to run passenger service to Jim Thorpe bringing outdoor enthusiasts into the Lehigh Gorge State Park.

During the negotiations leading to the opening of the bridge we established a critical partnership with the Pennsylvania Department of Conservation and Natural Resources (DCNR), who managed the bridge. This partnership would benefit both entities - a bridge that connected the Reading & Lehigh divisions for the Reading

The story of the Nesquehoning Bridge goes all the way back to 1996. To truly & Northern could become the same bridge that allowed hikers and bikers to have a appreciate the commitment of Andy Muller, Jr., our Owner/CEO, to this project we safe trail between the Gorge and Jim Thorpe. In July 2002 the Reading & Northern entered into a long-term lease agreement with the DCNR to operate over the river and truss bridges.

> Once the lease with the DCNR was secured, PennDOT and legislators were ready to commit funding to the restoration of Nesquehoning Bridge Phase I. Through the efforts of Representative Keith McCall, who represented the Jim Thorpe area, a total of \$800,000 was invested by the Commonwealth of Pennsylvania through its capital budget program to restore the bridge. In addition to the Commonwealth's commitment, another \$600,000 was invested by us, totaling a combined \$1.4 million public/private investment.

> With the right to operate over the river and truss bridges and the funding to restore the bridge and construct track, construction started in September 2003. By November the bridges were rehabbed and track construction of a connection to the Lehigh mainline was completed. Although the Reading and Lehigh Divisions were now connected Reading & Northern was still dependent on another railroad to connect its divisions.

> Approximately six miles north of the newly restored bridges the Reading & Northern utilized Norfolk Southern track for 200 feet at a point of switch known as M&H Junction. Our trains were required to contact the NS dispatcher to obtain permission to operate over this 200 feet of track before continuing on to our track. Not only did this operating system delay traffic, but it also meant the Reading & Northern was disconnected from its own mainline. To eliminate this problem our Maintenance of Way department constructed a new track to bypass the interlocking. The new track rejoined the Reading & Northern mainline at a new switch, CP Independence, on November 21, 2003.

> On May 13, 2004 we celebrated the grand opening of the bridge. Representative McCall spoke and summarized the key reason for the bridge, "the project will boost the region's economic development potential through the increased ability to engage in rail freight competition." Andy also spoke and noted with appreciation the support of other legislators including Senators David (Chip) Brightbill, Charles Lemmond, James Rhoades, and Representatives Robert Allen and David Argall.

> Now with a connected Mainline and a fully independent operation, the Reading & Northern was setting its sights for Nesquehoning Bridge Phase II.

Phase II – The Progressive Move

Phase 1 allowed us to connect our two divisions. But it did not allow us to create the efficient super-highway that Andy had set as his goal. He soon began telling the same agencies and supporters who supported the first bridge that "we propose building a new bridge to span the Lehigh River". The new bridge, however, was a much grander project requiring significantly more planning, and far greater funding.

The second bridge over the Lehigh River would offer a wye-like track configuration to provide the opportunity of a progressive move – a more efficient route with safer and more cost-effective operations. As Reading & Northern explained to legislators and PennDOT officials, Phase II would have the following benefits:

- Creation of a nonstop, direct traffic route by eliminating time consuming moves.
- Phase II's superior route would open economic opportunities by providing a faster connection for our system with interchanges into New York, New England, and Philadelphia.
- A second bridge would create statewide, even national and international economic benefit

Progress on funding was made, but very slowly.

In 2004 a line item for \$5 million dtedicated for Phase II was added to the Capital After a decade of appeals to legislators, fluctuating material costs, rejected Budget. Then an additional \$526,980.00 was granted for design and engineering. applications, and with the many efforts of our legislative partners, Representatives Keith McCall, Mike Carroll, Doyle Heffley, Jerry Knowles and Mike Tobash, But then the price of steel went from \$280 per ton to in excess of \$800 per ton. Andy Senators Joseph Scarnati, David Argall, John Yudichak, Pat Browne and John began the process of explaining to our friends and supporters in Harrisburg that "there was no way we could build the bridge for anywhere near the original estimate Rafferty, Congressmen Lou Barletta and Charlie Dent, and the Berks and Carbon of \$5 to 7 million." Andy Muller letter to Governor Ed Rendell on May 14, 2007. County Commissioners, as well as PennDOT officials, we secured a \$10 million And many of our friends supported increased funding especially Representatives capital budget grant for Nesquehoning Bridge Phase II. With the Commonwealth Keith McCall and Dave Argall. funding the awarded \$10 million, the Reading & Northern invested an additional In August 2008 a line item for \$10 million for Phase II was added to the Capital \$4 million towards the bridge and required track construction.

Budget. However, the next month, PennDOT informed us that no funding would Building a new river bridge would take time, but fortunately, building it took less be awarded for Phase II over the \$2.5 million that was previously awarded in late time than funding it. Completed on schedule and on budget, Nesquehoning Bridge 2007. Phase II was completed on February 4, 2020 when Andy Muller, Jr., at the throttle Year after year we went to Harrisburg and made presentations to different PennDOT of locomotive #5033, ran the first train across the bridge.

administrations seeking support for funding for the bridge, whose price had escalated to over \$10 million by 2010.

Finally, after years of hard work and with the support of many legislators, communities and customers we got the news we were waiting for from the Corbett Administration on August 14, 2014.

Dear Mr. Erik Yoder – VP Maintenance of Way,

On behalf of Governor Corbett, the Bureau of Rail Freight, Ports and Waterways wishes to inform you that your application for funding assistance under the Rail Transportation Assistance Program has been selected for funding. Your project is eligible to receive a maximum funding amount up to \$10 million which represents the 70 percent State share.

Sincerely, Sarah L. Gulick, Director Bureau of Rail Freight, Ports and Waterways

AN INTERVIEW WITH: **Andy Muller**

I have known Andy for over thirty years. When we first met, we were both young, ambitious and successful men in our own area. Andy was a very successful trader of precious metals and had become a self-made millionaire before the age of 30. He was currently operating a few railroads owned by Pennsylvania. I had recently finished a successful legal career at the Interstate Commerce Commission, (now Surface Transportation Board), rising to the rank of Senior Policy Attorney overseeing all important railroad decisions. I was currently at Conrail running its massive line sale and abandonment program.

Andy started visiting me in the late 1980's to introduce himself so that Conrail would consider him as the buyer of assets we would be selling in the Hamburg area. We quickly hit it off and I determined he would be a great candidate to buy the Pennsylvania anthracite cluster. What attracted me to Andy was his drive, work ethic, passion and money. Money was important for Conrail because we didn't want to sell our lines for nominal consideration. What also appealed to me was that Andy was an individual entrepreneur. Most of the prospective buyers I met with were corporations that had facilities on the line or municipal entities. In those cases, it took forever to get a decision made and negotiations were tiresome as attorneys would try to earn their pay by changing Conrail's boilerplate language. Andy was a breath of fresh air. We basically made a handshake deal for price and got the deal done.

What I learned then has proven true to this day. Andy is goal oriented. When he sets his mind on something, he pursues it. It might take years, it might cost millions, but Andy is Ahab in search of his whale.

And there it was!

In 1996 the Reading & Northern had no connection for its southern Reading Division and northern Lehigh Division. In 2003, the connection was accomplished, but the progressive move could not be accomplished.

In 2020, twenty-four years since acquiring our Lehigh Division, the Reading & Northern now has a direct route from Reading to Scranton and points beyond. Without the support and dedication from our many partners in business, the legislative and executive branches of government, and in communities we serve, such an engineering feat would have been impossible.

From a dream of our entrepreneurial owner, and with decades to marinate while support and funding was created to turn dream into steel and concrete, this is the story of how the Nesquehoning Bridge was built. We thank all our countless friends who helped turn this dream into reality and we hope to see all of you when we have the grand opening for the bridge later this year.

BY: WAYNE A. MICHEL, PRESIDENT

Continued on page 6.

Continued from page 5.

Below I talked with Andy about his pursuit over the ages for his Moby Dick, the new bridge across the Lehigh River connecting Reading to Scranton.

O. Back in 1996 why were you even thinking about the need to connect your existing Reading trackage to the Lehigh Division Conrail was just selling you?

A. You have to understand it all starts with a dream. I had a dream that a railroad running from Reading to Scranton would unlock huge potential for both the railroad and the region. Of course, back in 1996 I had no idea what the business opportunities would be. As you know railroads are notoriously bad at predicting the next big economic boom. We didn't see the ethanol boom, or the frac sand boom or even the crude oil boom. But I knew that it would just make sense if we could stitch together a through route from Reading and points south like Philadelphia and Scranton and points north like Binghamton, *New England and eastern Canada.*

On top of that was the purely personal idea of being able to take Carol (Andy's wife) and my Mom out on long train rides. When I purchased the Lehigh Line from you, I knew I had to find a way to get my passenger train from Port Clinton to Jim Thorpe and into the beautiful Lehigh Gorge.

So over time I worked to make sure I had the pieces that when combined would complete the entire new, high-speed, efficient route I envisioned.

I started with the need to get over the Carbon County-owned railroad, which was operated by the C&S Railroad. C&S was owned by friends of mine, Betsy (Ahner) and Jim (Zurn). I had already made one deal with Betsy and Jim to take over operating the line from Haucks to the Hazleton area. At the same time I made a deal with Conrail to serve Jeddo Coal via trackage rights and ownership of the four miles to the mine. Conrail didn't want to serve Jeddo as it was the only anthracite mine not served by me, so they were happy to let us take over that operation.

We quickly made a deal granting RBMN permanent trackage rights over the C&S for overhead moves and had it approved by Carbon County.

O. Why did you decide you needed to go beyond Jim Thorpe and cross the Lehigh River?

A. Well, there were basically two reasons.

Although I had no specific business plans, I knew there was potential to move anthracite and/or culm out of the Scranton region, which had been a production area in the past. I also knew I could get to Canadian Pacific in the Scranton area and as every shortline owner will tell you, there was an advantage of having two Class 1 connections. Even though I knew my purchase from Conrail included a paper barrier it did not extend to anthracite movements and certain other commodities. So as a prudent businessman I knew I had to keep open the possibilities for new business to move via CP since that second Class 1 connection would benefit our customers.

On a personal level I still wanted to be able take my passenger train over the Lehigh Line to go to dinner in Scranton at the train station.

What people don't realize is that it's not enough to have a connection. Once we acquired the Lehigh Line and the C&S trackage rights, we had a connection. But the connection required use of NS trackage. Basically, once we got to Jim Thorpe it was possible to cross over the line further South at Packerton Ict, but that was on Norfolk Southern. And dealing with Norfolk Southern at that time to get permission for trains to proceed was difficult and time-consuming. It was very frustrating for trains to sit for an hour or more to get permission to run over less than a half-mile of NS' lightly-used railroad to run south till we could get on our own railroad. I needed to put an end to that.

Q. So how did this preparation work get you to moving ahead on the Nesquehoning Bridge phase 1?

A. Well, as Therman (Madeira) and I would visit the area we found this old abandoned railroad bridge. It seemed to be in good physical shape, but it had no tracks. At that time, I had no real money to spend on fixing up a bridge, so we even thought about just laying planks across it.

Although we didn't have money, we did have some powerful friends in Harrisburg. We tracked down that the Bridge was owned by the DCNR (Department of Conservation and Natural Resources). With the support of our friends in Harrisburg we were ultimately able to make a deal with the DCNR to restore the Bridge to rail service and also build a separate trail for hikers across the Bridge. We also got money from Penndot to help restore the Bridge.

As an aside, a major reason we were able to make all of this work is we had gotten Conrail to agree to extend the physical limits of the Lehigh Line south to Lehighton. Originally, Conrail was only going to sell us the line to M&H Jct. where Conrail had its cut-off to the Ashmore Secondary to Hazleton. They came to us before closing and said they wanted to include one of their Lehigh Line double-tracks, Track 1 - the eastern-most track, as a means to reduce their obligations to Air Products for a long-term maintenance of a high and wide route. I jumped at that opportunity because I realized it got me one step closer to my goal of running between Reading and Scranton on my own railroad. Adding this track got me much closer to the C&S property and the abandoned railroad bridge.

Q. Once you had Phase 1 built and operational, along with the construction of Independence, you had the ability to run trains all the way from Reading to Scranton. Why did you still want to build a bridge allowing a progressive move?

A. Truth is I never thought of anything other than having a direct, progressive route to Scranton. That was my goal. I was focused on getting the needed new bridge across the Lehigh built. I knew that to make economic sense for RBMN and our customers, the train service had to be efficient and quick.

I figured somehow; I would find the money. I would cross that bridge when I got to it. No pun intended.

I was fanatically focused, my goal in life was to build a new bridge across the river.

Q. Along the way the project ran into many delays and many complexities. You had to have it redesigned by Al Roman to save a million dollars

in construction costs. And even then, you were hit by a huge increase in steel costs that almost tripled the construction costs, as well as your thirty percent match. Did you ever think about quitting?

A. No, not really. I had my goal and I figured you and I would find a way to get it done. We would work with the Commonwealth and our friends in Harrisburg to get the needed funding. We were finally making some good money handling freight.

In the near term I focused on related projects. For example, the main line on both sides of the proposed new bridge needed work. In 2011 and 2012 we had people out there welding thirty miles of that track to make it capable of handling the business that would use the bridge. I was just focused on the goal and made sure we all kept moving in that direction.

Q. How did you feel as you saw your dream turning into reality?

A. Strangely, I didn't actually stop and take time to dwell on what I was accomplishing. Part of me couldn't believe we were actually getting this done. So once the bridge was being built there was almost a sense of disbelief. I remember asking myself, "Who the hell builds a bridge across a river?"

A. Darn exciting. If you love trains and you love business, this gave me a great sense of satisfaction. This railroad is my baby. And we had just built this amazing, beautiful bridge.

I can't even describe what I felt. It was just so much fun. When we crossed the Bridge, Tyler and I got off and looked back and saw the train sitting over the river. And I thought of all the time and effort and I was just speechless.

END OF INTERVIEW

Well, Andy may be speechless but the rest of us are not. This Bridge was a truly singular accomplishment. It was a passion project by one man who had a goal of connecting his railroads for business purposes he could not even imagine in 1996.

In 1996 Andy could not imagine we would own and operate a warehouse in Ransom, we would serve P&G's largest manufacturing facility in the world at Mehoopany, we would have direct commercial access to Canadian Pacific through NS haulage for all commodities, and we would own and operate the premier industrial park in the region in Hazleton, the Humboldt Industrial Park. In 1996 Andy could not even dream we would be handling over 34,000 carloads and transporting over 140,000 passengers over 400 miles of railroad with over 200 employees in less than 25 years.

But what he could imagine is that a bridge connecting his two divisions and Reading and points south and Scranton and points north would become a powerful engine of economic development.

Andy built this bridge because of his love of railroading, his love of the Reading & Northern and his love of family. We are all thankful that Andy had the passion to accomplish his not-so-impossible dream. In the end of our story Ahab has caught Moby Dick..♦

Railway Age Names Reading & Northern its Regional Railroad of the Year for 4th Time

Port Clinton, PA - March 23, 2020

Railway Age Magazine has named Reading & Northern Railroad its 2020 Regional Railroad of the Year. This is the fourth time that Reading & Northern has been honored with this distinction, and it is the only railroad 2011, and 2015.

The railroad was recognized for its multi-year project to construct a new bridge spanning the Lehigh River near Nesquehoning, PA. The \$14 million bridge was a public/private partnership between the Commonwealth of PA and the R&N, with R&N contributing \$4 million. The new bridge is a beautiful 3-span, 450 foot long, structure that soars 55 feet above the river, connecting the railroads Reading and Lehigh divisions.

The railroad broke ground for the project in August 2017, and set the first beams in July 2019. Work was

completed in February 2020, and CEO Andy Muller. Ir win awards or recognition. We do so because we have operated the first train across the new bridge. to earn our customers' business every day. And to win the business we constantly have to be improving our This new bridge connection allows the Reading & service and offering new service. The Nesquehoning Northern to further improve service to its customers Bridge will enable us to improve service for many through improved transit times between the interchange of our customers and it will open up new business to win more than twice, winning previously in 2002, and the customers siding. By moving traffic via this route, it provides a faster transit time for the customer, opportunities for the region we serve and call home." cutting at least 48 hours out of the trip. The routing also Reading & Northern Railroad, with its headquarters reduces the total trip mileage, by eliminating circuitous in Port Clinton, is a privately held railroad company routing on the Class I railroads. The improved routing serving over 70 customers in nine eastern Pennsylvania also benefits equipment owners by reducing the round

trip by over 96 hours.

& Northern strives for greatness, but we do so not to cars, and employs over 300 dedicated employees.

Q. So we come to February 4, 2020 when you personally drove the first rain across the new Bridge. What were your feelings?

FOR IMMEDIATE RELEASE:

counties (Berks, Bradford, Carbon, Columbia, Lackawanna, Luzerne, Northumberland, Schuylkill, Andy Muller, Jr., CEO of the Reading & Northern said, and Wyoming) It has expanded its operations over the "On behalf of the 200+ employees of the Reading & last 20+ years and has grown into one of the premier Northern and the many contractors who helped us railroads in Pennsylvania. Reading & Northern operates build the Nesquehoning Bridge, I want to thank the both freight services and steam and diesel powered publishers of Railway Age for this great honor. Reading excursion passenger services, owns over 1300 freight

Regional Railroad of the Year Submission

contributing \$4 million, has been a dream of to the site. Work on the east side would closely Muller's for over 20 years. The dream is now the mirror what was being built on the opposite side reality!

For years R&N connected its Reading and Lehigh Divisions by way of an old bridge, which was One of the biggest moments for this project rehabilitated in 2003. That bridge connected an old Central Railroad of New Jersev line with the Lehigh Valley's former main line. Unfortunately the resulting connection was not a progressive move and moving traffic between the two divisions took more time and costs than optimal.

After years of working to persuade officials in Pennsylvania of the benefits of creating a new, efficient route between Reading and points South, and Scranton and points north, R&N received final grant approval in 2016. We immediately went to work. McTish, Kunkel & Associates took the lead on the engineering and design of the bridge. They designed a beautiful 3 span, 450 foot long, structure that would span the Lehigh River. The new structure soars 55 feet above the river, connecting the two divisions.

Upon receiving the official plans for the bridge, R&N put out a bid package. More than fifteen contractors submitted bids. In June of 2017 Penndot opened the bids and announced the winner was I. D. Eckman, a family owned and operated company just like R&N. With all the pieces in place we were set to begin construction.

The proverbial first shovel hit the ground on August 14, 2017. J.D. Eckman began by clearing and grubbing the land on the west side of the river, which then set the stage to be able to start construction on the south bridge abutment. The abutment was constructed by driving large steel beams into the earth to bedrock, and then forming and pouring concrete to form the southern Abutment. The next step was to build a causeway into the Lehigh River, to enable the contractor to excavate to bedrock and begin forming the foundation for the first pier. With the foundations in place, construction began on the two 40-foot tall bridge piers that would stand in the middle of the river.

Muller, Jr. capped his remarkable almost 40 additional coordination, due to our close trains operating between those two points and year railroad career with the recent opening proximity to the Lehigh Gorge State Park and a Jim Thorpe Yard, we now have one road train that of the Nesquehoning Bridge. This \$14 million Norfolk Southern line. We worked closely with operates a turn between Reading and Pittston. bridge, a public/private partnership between the the Department of Conservation and Natural These efficiencies have improved the velocity of Commonwealth of PA and the R&N, with R&N Resources, and Norfolk Southern to gain access the railcars by 24 hours or more. Those types of the river, with the construction of the bridge equipment owners. With this greater efficiency abutment and a pier in the river.

> occurred in July 2019, with the setting of the twelve-foot-tall, one hundred and thirty-foot-long beams. Setting the beams required coordination with multiple agencies and contractors. The beams it significant benefits for our customers. R&N were set, utilizing strategically positioned cranes already was the industry leader in on-time to lift and set the eighteen steel beams between the abutments and piers. Once the beams were in place, the contractor began to install the panning and rebar which was needed to secure the twelveinch-thick poured concrete deck.

Throughout November the contractor put the finishing touches on the bridge, by completing the parapet wall, as well as backfilling and grading the east and west abutments. On November 26, 2019, J.D. Eckman officially completed the bridge structure.

Once the bridge work was completed, the R&N track gang and track building contractor, Track Solutions, went to work building the track across the new structure. We started by building the northern turnout, and track over the bridge. At the southern end, the track work would also require severing the existing main track, and building track on a new right-of-way, that was graded to line up with the new bridge. This led over 96 hours. to a single day with most of our forces on site to disconnect and swing the old existing track over and connect it to the new track and the southern end of the bridge. Once the track was in place, we dumped ballast and surfaced throughout the horseshoe shaped curve, thus completing the construction. connection and all necessary components.

The new bridge was officially placed in service on February 4, 2020, with CEO Andy Muller Jr. and EVP-Operations Tyler Glass, operating the first train across the bridge.

As a result of the new bridge, and the progressive movement it allows, we have made changes to our trains operating between Reading and Muller has moved from dreamer to doer!.♦

Reading & Northern's owner/CEO Andy Work on the east side of the river required Pittston (near Scranton). Instead of two separate of efficiencies translate into better service for our customers as well as better cycle time for we were able to allocate the locomotives and employees to other jobs to handle our constantly growing traffic base; our traffic has grown by 24 percent since the end of 2016.

> The completion of the new bridge brings with performance as we have met our guaranteed twohour service window 99% of the time over the last three years. This new connection enables us to further improve our service to our customers through improved transit times between the interchange and the customers siding. Cars are now received at the closest interchange point (Taylor, PA or Reading, PA) and routed directly to the customer's serving yard on the same day. Our new NRFF train moves traffic between the two divisions, making a round trip in 10 hours. By moving traffic via this route, it provides a faster transit time for the customer, cutting at least 48 hours out of the trip and eliminating the need for the cars to be processed at the NS Allentown yard. The routing also reduces the total trip mileage. by eliminating circuitous routing on the Class I while increasing the travel on R&N by an average of 93 miles. The improved routing also benefits equipment owners by reducing the round trip by

This newly configured main line is a noteworthy achievement given that most of the main line routes in Pennsylvania were completed by the early part of the 20th Century and have remained basically the same since their original

The completion of this new bridge brings tremendous improvements in rail service for customers in northeastern Pennsylvania that will have lasting effects for decades to come. This dream come true is the testament to one man's perseverance and willingness to take risks. With the opening of the Nesquehoning Bridge Andy

Nesquehoning Bridge Phase I & II Timeline September 2003 to February 2020

September 2003

Phase I Bridge Rehab

November 2003

May 13, 2004

Phase I Independence

PHASE I RIBBON CUTTING

2004-2014

Phase II Concept Drawings

Phase II Pre-Con

August 14, 2017

August 2017

Phase II Ground Breaking

July 11, 2019

Phase II First Beams

July - September 2019

Phase II DECK CONSTRUCTION

Sept. 2019 - Feb. 2020

Phase II Track Construction

A Towering Achievement

Building the Nesquehoning Bridge 2

BY: CHRIS GOETZ, VP MAINTENAN

and permits from PaDEP, DCNR, Army Corps of Engineers, and the Carbon County Conservation District were all required. Several comprehensive studies, including archaeological investigations, were also completed as part of the permitting process. MKA developed erosion and sediment pollution control plans, landscape restoration plans, environmental assessments, hydraulic analyses, scenic river reviews and aids to navigation plans, all of which were a part of the permit applications. All permits were eventually acquired and were updated in 2015 after project funding was obtained. The project was constructed in full cooperation with all state and federal agencies while allowing for the continued recreational use of the river during construction.

Exert Courtesy McTish, Kunkel & Associates.

Nesquehoning Bridge - Construction

The construction part of the story starts in January of 2016 when we received approval from PennDOT to award the bid for the construction of the Bridge to J.D. Eckman (JDE), a family owned and operated company like the Reading and Northern Railroad. It would take another 18 months for the first shovel to hit the ground. Over the next couple of years an amazing amount of work had to be done

This is the amazing story of how the Reading & Northern went from receiving funding approval from PennDOT to building the magnificent Nesquehoning Bridge Phase 2.

entire project and horseshoe shaped curve.

In 2005, McTish, Kunkel & Associates (MKA) was selected by the Reading & Northern Railroad to design and begin the permitting process for a new river bridge crossing located in Lehigh Gorge State Park. This new bridge would take southbound rail traffic and switch it westbound in a short stretch between two existing bridges previously rehabilitated and put back into service in 2004, Lehigh River Bridge and Coalport Truss. The load rating and rehabilitation design of these bridges were also completed by MKA in the early 2000s.

In addition to the design of the new river bridge, a new track alignment was developed by MKA to fit the site, which required the use of a thirteen degree curve, the tightest permitted by AREMA standards. Once the alignment was set and track tie-in and relocations identified, the bridge spans were developed. Bridge spans were developed for conventional steel plate girders, which permitted placing piers outside the main river channel and resulted in a three span configuration approximately 420 feet long. A ballasted deck was also chosen to allow for the use of straight girders with the curved track alignment.

Six weathering steel plate girders with a yield strength of 50,000 psi are used in each span. Each girder is over ten feet deep and supported by eleven foot wide hammerhead piers in the river and two concrete abutments perched atop the steep riverbank slopes. In anticipation of the future bridge construction, throughout the design process, MKA also consulted with capable contractors and steel fabricators to work through constructability issues such as beam delivery, construction access, crane placement and scheduling. Once the design drawings were reviewed and approved, the plans and construction specifications were developed into a construction contract used to solicit bids for the project once funding was awarded in 2014.

Along with the engineering of the bridge and track alignment, the project also needed to be sensitive to the natural surroundings of the project site. Impacts to the Lehigh River had to be minimized due to its designation as a wild and scenic river, as a navigable waterway, and for its location within a state forest, as well as its significant recreational use.

The construction of the project would also provide an opportunity to improve the surrounding area through the installation of stormwater management facilities and native landscape plantings.

And for the bridge project to become a reality, coordination with several state and federal agencies had to be undertaken to permit the new river bridge crossing. Approvals

to arrange for access to the site as well as to build the bridge, construct the tracks, and connect them to our existing railroad.

On July 11, 2017 JDE started its mobilization. On August 14th, JDE began clearing and grading a half-mile long access road to the construction site. Surveyors came to mark out limits of disturbance, areas to be graded, and shot elevations. A stone crossing was placed over our main line for access to the southwest side of the project. This would allow the contractor to cross the tracks and clear the partially wooded area to grade the land where our future main line would be built. They also needed to construct a temporary haul road leading down to pier 2 in the river. The haul road would allow them to bring in rocks, some as large as a refrigerator, to place in the river as a causeway. This causeway was about a 40 by 40 foot area built up to excavate the pier foundation. Buoys were placed in the river as markers to warn rafters of the narrowed river navigation ahead.

Continued on page 22.

Continued from page 21.

In addition to work on the southwest side J.D. Eckman installed a stilling basin to filter the water coming off the mountainside and throughout the site before it would run into the Lehigh River.

Along the west bank JDE began to excavate for the first abutment by excavating tons of dirt. Next, they drilled down to bedrock. A subcontractor tested the rock and soil to ensure drillers hit bedrock. Afterwards steel pile was driven into the earth utilizing a pile driver hammering blow after blow until the beams were seated. These steel beams would extend out of the ground three to four feet. The beams would be tied together with rebar to form and pour concrete for the abutment's footer. While working on the abutment they also began excavation for pier 2. Long pieces of sheet metal 20-foot-long were driven into the ground and locked together to form a barrier from the sidewalls that were excavated. Cold and rainy weather at the end of 2017 delayed the project as JDE could not keep up with pumping out all the water from the rising river. Months later JDE was be able to complete excavation and pour concrete for the base of the pier.

In early 2018 RBMN discussed the need for an access road on the east side of the river with Norfolk Southern Railroad and the Department of Conservation Natural

Resources. We are grateful for the support we received from both NS and DCNR during this project. The plans for the access road necessitated a paved crossing over two tracks. Nearly a year later the access road was built to reach the east side of the project.

Throughout the spring and summer months the abutment on the west side began to take shape. Once the abutment was complete JDE backfilled the surrounded area. JDE completed clearing and grubbing on the hill side to the west end of the project and also constructed a swale to carry the mountain run off to a basin that filters the water. As a cylinder pier was constructed from the base of the river, the first concrete portion of the pier stood over twelve feet tall. Before forming the pier cap, the next portion of the pier was bottlenecked. The result was an oddly shaped flower standing alone in the river.

Building a second pier in the river was also difficult. First, JDE had to install a second causeway for access to construct the east side pier. And then, as JDE dug into the causeway to find bedrock, they encountered a false bottom. This was an area that JDE understood to be bedrock based on the exploratory drilling done many years prior. But now JDE would need to dig deeper.

Continued on page 24.

Upon removal of the brush and trees that were chipped into trucks and hauled away, JDE began to level and grade the new location for our Main Line.

Continued from page 22.

As part of the process of building the second pier JDE constructed another haul road leading up to the eastside abutment. Since the abutment on the east side would be in close proximity to our track, JDE needed to drill large holes into the ground to In September and October JDE put the final touches on the bridge including place heavy steel pile that would prevent movement of our tracks.

With that done JDE could excavate behind the steel pile and begin the foundation process for this abutment.

As JDE continued over the early months of 2019 to complete the abutment and pier on the east side of the project they formulated plans to bring the massive steel beams that would be placed between the three spans of the bridge. This would require strategic placement for large cranes to pick and place eighteen 12-foot-tall by over 100-foot-long beams to their final resting place.

On July 11, 2019 they started to place beams atop the piers and abutments. This was no small feat as it would take hours to set a single beam. As the beams were set Concurrent with JDE's construction RBMN was finalizing plans for the track between the abutments and piers, the massive bridge was starting to take form. The bridge came into focus as JDE installed deck pans between the beams, overhangs project. along the outsides to create a walkway, and tying in rebar that would eventually cover the deck of the bridge. JDE formed the side walls and poured the deck in

three sections, just like the spans for expansion and contractions of the steel beams below. What followed was a convoy of truck after truck delivering concrete for the 12-inch-thick pour. By late August one could now walk across the entire bridge.

installation of 3 foot sidewalls that required them to form, install rebar, and pour concrete; final grading on the east side abutment sloping away from the wingwall; and digging swales along the west side of the already graded area.

One final hurdle to overcome as they excavated for the swales and the track subbase was placing the top of the subbase 20 inches below where the mainline was currently positioned. This posed a problem of how RBMN was going to tie all the trackwork all together; we would eventually need to submit another change order so we could bring the subbase within approximate track level using number one aggregate.

construction. From the outset we knew this would not be a simple track building

Continued on page 26.

With sidewalls poured and forms removed, JDE moves to framing the head wall.

Continued from page 24.

JDE installed overhangs on each side of the bridge as walkway

We have a lot of experience in building track. This bridge project was different. RBMN needed to build a number 12 turnout on the northern end, construct a 13° curved track over the bridge, and completely reconstruct the main line on the southern end of the bridge. To accomplish these tasks, MOW enlisted not only multiple crews from within the department but also an outside contractor, Track Solutions. With the amount of other projects MOW had going on this Fall and Winter, and to keep the track construction on schedule, RBMN hired Track Solutions to build the track over the bridge and assist with the track construction on the southern connection.

To build the switch on the northern end, MOW had its Sr. Division Leader, Duane Engle, oversee and design the number 12 turnout that was needed. Duane, who has over 30 years of experience with RBMN, remembered the first time he heard about the potential of the bridge. "It was 2003 and we just completed work on Phase I CNJ bridge. After completing the work, I was on one of the first trains to run over the recondition bridge and Andy looked over to the west and talked about how nice it would be to have a bridge that gave us a progressive move north." What Andy wants, Andy gets...even if it took over 15 years!

Building the track was challenging. Crews had to make do with limited access as the bridge was only 27 feet wide. We also had to work hard to maintain the 13° curve with welded rail throughout the 450 feet of track built over the bridge. And then was the issue of making the southern connection. To make that connection reality!

meant we had to completely sever the main line, which meant we had to work fast so our customers were not adversely affected. The crews also had the challenge of lining the new track so it could seamlessly enter the 13° curve of the bridge all while making sure to maintain the original 1% grade. Matt Minnich, who is one of the Reading Division Foremen, was heavily involved on the southern connection project. He noted, "while tying the southern connection together, there was about an 18 inch difference in elevation from the track coming off the main and onto the bridge. It took multiple passes with one of the Tampers and dumping stone for us to get the grade we needed to make the connection and maintain the 13° curve." Overall, just the southern connection alone took almost all of our MOW forces and help from Track Solutions to build the 850 feet of track and make the connection. Finally, the track construction part of the project was completed after three months of hard work and a brief two day partial service interruption.

With the completion of Nesquehoning Bridge Phase 2, Andy Muller has seen his dream turn into reality. With the help of the Commonwealth and many friends in Harrisburg and elsewhere, as well as the help of many contractors, RBMN completed one of the most significant railroad construction projects undertaken in the last fifty years. The project was completed on time and on budget and was done safely.

Thank you to all who contributed to make the Nesquehoning Bridge Phase 2 a

ong beam into place between abutment two and pier two.

With the bridge finished and backfill, JDE focused on removing the causeways in the river.

A crane was used to assist with setting forms for the pier.

West side abutment and pier completed JDE focused on pier two and the east side abutment.

A grapple truck is used to place the rail in position to bolt together. From left to right (Brendle Stufflet, Russ Monroe, Charles Carl, Matt Minnich, Dennis Roshac, John Brown, Nick Alberswerth, Jason Shupp, Brandon Wagner, Enos Bleiler, Matt McGinnis)

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A turnout leading into Jim Thorpe will later be constructed here as this starts the 13-degree curve over the bridge.

Using a tamper to squeeze the stone under the ties helped to level and grade the track. (Enos Bleiler)

The final moments where the contractor was finishing track construction and RBMN connected the track at the southern end. From left to right (James Alba, Ryan Lake, Russ Monroe, Matt McGinnis, Ryan Rupprecht, Josh Rodney, Larry Weller, Matt Mizikoski, Matt Nestor and two men from Track Solutions on the right)

(Brendle Stufflet, Mario DeMarco, Brandon Wagner, Matt Sloskey, Justin Hughes, John Brown, Justin Fetterolf, Charles Carl, Alex Scubelek in backhoe, Enos Bleiler & Matt Minnich.

New Main Line during construction. (Shan Himmelberger in the backhoe assisting Nick Alberswerth and Matt McGinnis along with Track Solution contractors)

Putting the Bridge to Work

BY: TYLER GLASS. EXECUTIVE VP OPERATIONS

By the Summer of 2019 it was clear that the new heavy coal movement are frequent. Our ample fleet equipment. Nesquehoning Bridge Phase 2 would be operational by the winter. Although the Operating Department needs in the Scranton region. had long hoped for construction of a progressive route connecting our two divisions, it was now time to turn hope into plans.

Instead of two separate trains operating between those two points with Jim Thorpe Yard as the midpoint, we created one road train that operates a turn between Reading and Pittston. Our flagship Fast Freight is designated NRFF, this train now originates out of Reading in the early afternoon Pittston.

Given that the new NRFF had the power to take all freight from Reading direct to Pittston we were able to move some of our larger six axle road locomotives out of Pittston. We no longer needed that power sitting on our Lehigh Division since we didn't need to go over the mountain between Pittston and Jim Thorpe with a dedicated crew anymore. We now use those locomotives on our Reading Division where

of four axle power can easily handle all customer

As we changed how and where we used our power we also changed how and where we used our manpower. At no point did we ever consider The most obvious move was to change our schedule reducing our staff. Instead we moved people to of trains operating between Reading and Pittston. new jobs in support of a new operating plan made possible by the Bridge. We have added two yard jobs, one at Reading and one at Pittston. Our yard job in Pittston works in the evening and takes the freight directly from the inbound NRFF and classifies the cars for the next morning's train crews. We moved some of our service windows in the Scranton area to with ample road power to get all freight to and from better serve our customers and improve our railcar velocity. The yard job at Reading handles the NRFF freight coming from Pittston. The railcars are either classified to go north on another train the next day or are interchanged to NS shortly after the NRFF arrival at North Reading.

> The NRFF operating plan has already improved the velocity of railcars by 24+ hours. This translates into significant advantages for our customers through

Our passenger service is also benefited. The route created by the new bridge has opened up opportunities for excursions between Reading and Scranton and all points in between. This will afford more opportunities for passengers to see areas of our railroad, including the beautiful new bridge.

Since we operated the first train over the new bridge on February 4th we are now well into our new operating plan and it has worked as well as anticipated. The railroad now seems a bit smaller as we have the ability to move railcars all over the system in a day as opposed to a multi day affair in the late 1990s. Now we have crews from either end of the railroad interacting with each other on a daily basis. It is the final step in creating a unified railroad and no longer having "divisions" so to speak.

This Bridge not only bridged our two divisions, but it also seems to have bridged decades as we have moved from an antiquated operating regime into a 21st century streamlined thing of beauty. We can't timelier shipments and better cycle time for rail wait to realize all the benefits from this new Bridge.♦

Making the Bridge Work for Customers

BY: DANIEL R. GILCHRIST, EXECUTIVE VP MARKETING & SALES

We are very excited to finally have completed the Nesquehoning Bridge Project. You can read some details on the history and construction of this bridge in some of the other articles in this edition as well as the operating efficiencies it brings to the RBMN.

customers. And to answer that we have to look at some of the trends in the industry.

As the large railroads have initiated their "precision railroading" changes and "directional routing" we have done the same. Today all our traffic either in the northeast and eastern Canada comes to us at Taylor. All other traffic comes to us at Reading. What this means is Norfolk Southern, the carrier that delivers or picks up all of our interchange traffic (on its own account or for Canadian Pacific via haulage), is running our customers' business more efficiently. Cars are being delivered to the Equipment velocity is a major goal of railroads Northern.

interchange location that enables NS to minimize its and customers alike. Cars can't be reloaded until mileage, which leads to more efficient routing of our traffic.

With the new Nesquehoning Bridge we can now take those cars moving from Taylor interchange What I want to talk about is what it means for our to Reading Division customers and from Reading interchange to Lehigh Division customers in one day. The same applies on the outbound empties. The result is a much faster movement of cars than the old approach where NS would have to move cars hundreds of extra miles and go through Allentown comes to us at Reading in the south or Taylor in Yard just to bring them to an interchange location the north. More specifically, all traffic from points closer to the customer. We now handle that move over our system and we do in an expedited fashion.

> An additional benefit is that the elimination of movement through Allentown Yard and its hump yard eliminates delays and a potential location for damage to lading.

they return to origin again. The longer that takes, the more cars are needed in the fleet and the more susceptible we are to disruptions or delays. And the more expensive rail transportation is for our customers. Customers and railroads do not benefit from having extra equipment taking up space and requiring capital and maintenance dollars.

Finally, by moving these cars in a single train the loads are not sitting in intermediate points where they are more vulnerable to vandalism or even product theft. Keeping these cars moving is the best prevention for this.

In short, the new Nesquehoning Bridge has made possible improved transit time, improved reliability, damage prevention and greater security. These benefits will accrue to our customers and keeping our customers satisfied is job one at the Reading &

Happy Birthday!

MAY 1 SHAWN FREDERICKSON	JUNE 2
MAY 2TONY WEACHOCK	JUNE 3
MAY 6 JOANNE EVANS	JUNE 4
MAY 7JOSEPH BURKE	JUNE 5
MAY 7 BRETZ FETTEROLF	JUNE 7
MAY 9 EUGENE BOYLE, JR.	JUNE 8
MAY 9GORDON CLARK	JUNE 10
MAY 9 DENNIS ROSOHAC	JUNE 15
MAY 11DEANNA JOHNSON	JUNE 18
MAY 11 AARON SCHLOSSER	JUNE 18
MAY 12 AMANDA COLLINS-WEST	JUNE 22
MAY 12 MICHAEL HOFFA	JUNE 23
MAY 16 ALLY MCGINLEY	JUNE 27
MAY 17 RHONDA BUECHLE	JUNE 28
MAY 19 CHARLES TRUSDELL, III	JUNE 28
MAY 21CHARLES TRUSDELL	JUNE 30
MAY 24 LISA MATZ	JULY 1
MAY 26 MARIO DEMARCO	JULY 1
MAY 26 RYAN RHODY	JULY 3
MAY 27 CHARLES BURNETT	JULY 4
MAY 28STAN NESTOR	JULY 5
MAY 28 SIERRA WANAMAKER	JULY 5
MAY 29JEFFREY SONDAY	JULY 6
MAY 29 MICHAEL GRUBER	JULY 6
MAY 31KATIE BONNER	JULY 8
JUNE 2 BRANDON KALBACH	JULY 10

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