

# The INTER-SECTION

October/November 2017



**ASHE**  
Altoona

# Christmas Party at Germantown Winery

**What:** Christmas Party

**When:** December 13, 2017  
5 pm to 7 pm

**Where:** Germantown Winery  
3568 Frankstown Road  
Portage, PA 15946

**Cost:** \$25 per person  
~ Wine, tapas, door prizes, and more ~  
*Guests are welcome!*

We will be holding a basket raffle. If you are interested in donating a basket, please respond to Jess Urbas at [jurbas@pa.gov](mailto:jurbas@pa.gov). As always, all proceeds go to a local charity!

**Please RSVP to Bill Wieserman at**  
[w.wieserman@gaiconsultants.com](mailto:w.wieserman@gaiconsultants.com)  
**by Wednesday, December 6th to reserve your spot!**

~Reservations made and not honored will be invoiced~



Opened in the summer of 2014, Germantown Winery is nestled in the mountains of Portage, Pennsylvania. They offer a wide variety of grape and fruit wines appealing to every discriminating palate.

Their wines include Riesling, Concord, Niagara, Merlot, Steuben, Elvira, Traminette, Geisenheim, Blueberry, Cherry, Apple, and Catawba. In 2015, they added Pino Gris, Gredonia, Chambourcin, and Cabernet Sauvignon.

## Coming Soon...

*The ASHE Altoona Section website is on the move.*

Our website is an important tool in reaching out to members. To better serve you and allow for consistency with ASHE National and across other sections, we are working on a different platform for our website.

The new website will be more user-friendly, while still offering the same information our members need and want. Stay tuned for more information as we launch the new website.



### ASHE's Mission Statement

To provide a forum for members and partners of the highway industry to promote a safe, efficient, and sustainable transportation system through education, innovation, and fellowship.





# ASHE Altoona October Meeting Highlights

## *Happy 55th Anniversary!*

On Wednesday, October 11, ASHE Altoona members got together to celebrate the section's 55th anniversary and learn about roadway safety.

Brian Krul, ASHE National Director, attended the event to celebrate and present the section with a 55th anniversary certificate.

After the presentation, Michael Castellano, a Safety Engineer with FHWA's Pennsylvania Division, provided an overview of roadway safety.

*Did you know that in 1962—the year ASHE Altoona was formed—that the Federal Highway Act of 1962 created the federal mandate for urban transportation planning in the U.S.?*

It was passed at a time when urban areas were beginning to plan interstate highway routes through and around their areas. The 1962 act, combined with the incentive of 90 percent federal funding for interstate highway projects, caused urban transportation planning to spread quickly throughout the United States. It also had a significant influence on urban transportation planning in other parts of the world.

*~ Congratulations  
ASHE Altoona Section! ~*



*Top: Brian Krul presenting Jessica Urbas with the Section's 55th Anniversary Certificate  
Bottom: Michael Castellano presenting on roadway safety*



*Brian Krul addressing the crowd*



# Builder's Club of the Month



*Mackin has embraced our core values of Integrity, Quality, and Excellence to provide our clients with innovative solutions for Engineering, Design, and Planning projects.*

## Our multidisciplinary services include:



Highway Engineering



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Traffic Engineering



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# Builder's Club of the Month Showcase Article

## A Safe Alternative: Design of PennDOT Ramp G3 Tunnel

Washington County, PA

Mackin Engineering Company, of Pittsburgh, was contacted by Golden Triangle Construction Company to perform the design of the District 12 Ramp G3 Tunnel at the I-70/I-79 South Interchange. The existing 1960's dual span I-70 bridges which carried I-70 over Ramp G3 required superstructure replacement and substructure rehabilitation. Golden Triangle proposed an alternative to District 12 – construct a concrete box (tunnel) under the existing bridges, construct an embankment in the area occupied by the bridges – then remove the bridges and construct the remainder of the embankment and pavement over one weekend. Golden Triangle's proposal was accepted by District 12, and was ultimately approved by FHWA. The elimination of the bridge resulted in significant savings in traffic control costs. However, the biggest benefit was the safety of both the public and construction workers.

### Key Issues

Creating a new ramp profile was very difficult. Conditions included a 5% grade of existing I-79 South, the low chord elevations of both superelevated bridges above, and a pier foundation for the new flyover ramp just north of the bridges. The new ramp profile had to be above the northern pier foundation, under the existing beams, and tie into the existing grade to the south while providing minimum 16'-6" vertical clearance in the tunnel and superelevation transitions through the tunnel. To meet these constraints, the roof of the tunnel was sloped to match the grade of the existing bridges, the ramp roadway was placed with a vertical sag curve through the tunnel, and the tunnel structure was constructed on a different sag curve alignment to accommodate the roadway and maintain constant wall heights.

Horizontally, the section of the ramp proposed for the box tunnel was located between reverse horizontal curves. The original bridges were built to accommodate a 44' median between the ramps which set the piers far enough apart to provide 37'-10 ½" between foundations. The ramp and tunnel walls required a width of 37'-8", slightly less than the available 37'-10 ½".

Another concern was settlement. Earth, Inc. provided geotechnical analysis and recommendations. A layer of dark, organic soil was identified between fill material placed during construction of the original I-70 and bed-



rock. It was estimated that up to 5" of settlement would occur at the southern end of the tunnel with the northern portion of the tunnel on bedrock. Pre-

loading of the tunnel area, and the approach span area after construction of the tunnel, reduced settlement to 1" or less.

District 12-0 was highly pleased with the tunnel project as evidenced by this quote from District Executive Joe Szczur in the Spring 2015 edition of Highway Builder Magazine "When Golden Triangle first presented this concept to Penn DOT, the most important aspect of the potential benefits which caught our attention was safety. Eliminating the "as-designed" rehabilitation to the two mainline bridges carrying Interstate 70 over the ramp to Interstate 79 south allowed several safety improvements that this tunnel afforded. These included a much safer way to construct the tunnel versus rehabilitating the structure; a safer way to set the work zone up to navigate traffic through the interchange area; but most importantly, a much safer way for workers to construct the tunnel.

*"It's simply one of the best examples of innovation and partnering between the Department, the Federal Highway Administration, the contractor, and their consultant that I've seen ... Everyone involved needs commended for one heck of a job well done!"*

**Mackin maintains offices in Pittsburgh, the Mon Valley, and Harrisburg and provides services for Highway and Traffic Engineering, Bridge Design and Inspection, Surveying, Planning, Construction Inspection, Landscape Architecture, Civil Engineering, and Water/Wastewater. Visit us at [www.mackinengineering.com](http://www.mackinengineering.com).**



# In Case You Missed it in the Last Issue!

The ASHE Altoona Section celebrated its 55th Anniversary. Take a look back at what was happening in the world in 1962!

## *Cost of Living in 1962:*

Average income per year: \$5,556  
Average cost of a new car: \$3,125  
Gas per gallon: \$0.28

## *Major News Stories in 1962:*

John Glenn becomes the first American to orbit the Earth in February of 1962

First Beatles single "Love Me Do" is released

Oral Polio Vaccine used to combat polio

Andy Warhol unveiled his famous soup can painting

Johnny Carson begins as The Tonight Show presenter

The U.S. Navy Seals were created

Marilyn Monroe famously serenades President Kennedy with a breathy rendition of "Happy Birthday." Sadly, a few months later, she is found dead

Cuban Missile Crisis takes the world to the brink of war

First Walmart, K-mart, and Motel 6 opened

President Kennedy proposes a "Consumer Bill of Rights"

"The Beverly Hillbillies" and "The Dick Van Dyke Show" debuted on TV

First James Bond movie "Dr. No" was an instant success

The Space Needle in Seattle is completed in time for the 1962 World's Fair

Marvel's Spider-Man makes his first appearance in a comic

*~ Congratulations ASHE Altoona Section! ~*

## The Connector...

*Where in District 9-0 are Penny and Dottie?*



*Penny & Dottie*

**COME ON, VENTURE A GUESS!**

*Where do you think Penny and Dottie are visiting in the beautiful countryside of District 9-0?*



***Hint: What is the nation's largest wartime veterans service organization? And, where is this one located? Don't leave it to...***

*(The answer will be published in the next edition of the Inter-Section.)*

*Answer to Last Month's Clue: Yellow Creek Bridge west of Hopewell*



# ASHE Builder's Club Members

**Thank you for supporting the ASHE Altoona Section!**

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## Welcome New Members

Amanda Brown



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## Newsletter

### Editor

Dave Hoglund

[dhoglund@rettew.com](mailto:dhoglund@rettew.com)

Please submit your contributions for the next edition by December 22, 2017.



## The Roundabout...

### Industry Events & Other Chapter Happenings

| Date        | Event   |
|-------------|---|
| November 21 | ACEC/PA Eastern Chapter Meeting (Diamond Hotel, Malvern)              |
| November 29 | ASHE Southwest Penn Social (Four Seasons Brewing Company/Pub)         |
| November 30 | WTS Philadelphia Awards Dinner (Vie, Philadelphia)                    |
| December 4  | ASHE Harrisburg State of District 8-0 Luncheon (Radisson Penn Harris) |
| December 12 | PHIA Policy Leaders Breakfast (Hilton Harrisburg)                     |
| December 13 | ASHE Pittsburgh Holiday Party (The Cheesecake Factory)                |
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## Save the Date! A look ahead...

May 17-20, 2018: ASHE National Conference (Westin Cleveland Downtown)

## Career Opportunities

Visit the [ASHE Altoona website](#) and click "Career Opportunities."

Builders Club Sponsors can submit job openings to be posted by emailing Matt Walerysiak at [mwalerysiak@markosky.com](mailto:mwalerysiak@markosky.com)



Please like us on Facebook

*If you wish to be involved with the ASHE Altoona section for the 2017-2018 season, please contact Chuck Stajewski at 412-264-8701 or at [cstajewski@msconsultants.com](mailto:cstajewski@msconsultants.com)*