



## MEETING MINUTES

**DATE:** October 21, 2016

**MEETING DATE:** October 18, 2016

**PLACE:** Little Britain Township Municipal Building, 323 Green Lane, Quarryville PA 17566

**TIME:** 4:00PM

**SUBJECT:** RBRP JV-273: S.R. 2002, Section 000 over Reynolds Run Bridge Replacement Project, Little Britain Township, Lancaster County  
Consulting Party Meeting

**ATTENDEES:** Richard Reisinger, PennDOT District 8-0  
Cheryl Nagle, PA SHPO  
Jerry Emling, Little Britain Township  
John Chicorelli, Walsh Granite  
Jim Bintrim, HDR  
Joanne Keim, A.D. Marble  
Julia Moore, RETTEW  
Kerry O'Malley, Consulting Party  
Kris O'Malley, Consulting Party  
Vernon Ringler, Consulting Party  
Ediene Ringler, Consulting Party  
Marguerite Donohoe, Consulting Party  
Sue Bullitt, Consulting Party  
Jim Bullitt, Consulting Party  
Carol Bower, Consulting Party  
Barton Bower, Consulting Party

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The purpose of the meeting was to discuss the minimization measures submitted to the consulting parties and the Pennsylvania State Historic Preservation Office/Pennsylvania Historical and Museum Commission (PA SHPO) on September 28, 2016. All commitments made under the Section 106 consultation process will be tracked by PennDOT to ensure completion.

Following introductions, Jim Bintrim provided an overview of the bridge project and schedule for the Rapid Bridge Replacement Project.

### **General Project Questions**

Questions were asked regarding the bridge design and right-of-way acquisition. Refer to the June 22, 2016 minutes (attached) for the comments on the bridge design including width requirements and the timber bridge alternative.

The process for acquiring right-of-way was explained by Rich Reisinger. Following approval of the right-of-way plan, a settlement process would begin with the affected property owner working toward an amicable agreement. If that is not attainable, the property would be condemned. It was explained that eminent domain is the process by which right-of-way is acquired by a governmental agency and it can conclude through an amicable agreement or condemnation as described above.

In response to a question regarding the guide rail asked by Kerry O'Malley, Jim Bintrim responded that the guide rail position may change during final design. Jim agreed to determine whether the use of an attenuator was possible at the terminus of the guide rail on the O'Malley property.

Meeting Follow-up: The use of an impact attenuator for the guide rail in the far left corner adjacent to the O'Malley property would cause the guide rail system to be extended approximately an additional 100 feet. The increase in length of guide rail appears to prohibit the use of an attenuator in this location due to the close proximity of the mill and the extension of the guide rail over the tailrace. In addition, the extended guide rail would require additional grading that would further impact the mill pond and wheel.

### **Review of Follow-up Items from June 22, 2016 Minutes**

Tail Race Inspection: The tail race inspection has been completed and the report was submitted to the consulting parties and PA SHPO for comment.

Aesthetic design: The use of a form liner for the exterior face of the parapet was proposed and documented in the minimization measures referenced above. Examples of patterns were provided at the meeting (attached). The stone pattern would be similar to the mill foundation. The concrete of the form liner, wingwalls and abutments will be tinted and in addition the exterior face of the parapet form liner will be stained to create an appearance similar to the mill foundation. At the time of construction, an onsite mock-up of the suggested treatment and colors will be provided. A request was made by the consulting parties to use the stone facing on the inside face of the parapet. Jim Bintrim agreed to determine whether that would meet PennDOT standards.

Meeting Follow-up: The use of a form liner on the inside of the parapet is not precluded by the Contract Documents and/or governing codes/specifications. Typically, the reveal on the inside of the parapet should be minimized to reduce the potential for snagging of errant vehicles with a 3/4" or less reveal being preferred.

Guide Rail: The consulting parties requested the consideration of timber guide rail at the project location. The timber guide rail does not meet PennDOT guidelines and cannot be used at this location. Standard guide rail will be used, but will be painted.

Archaeological Artifact return to the Property Owners: At the conclusion of Section 106 process, the artifacts will be returned to the appropriate property owners.

Locate Septic System: The septic system tanks and cleanout have been located and included on the project plan (attached). Through the use of ground penetrating radar, the septic field will be located and added to the plan. The property owner has been contacted to coordinate the completion of this task.

Vibration Monitoring: Monitoring will occur during construction for the mill and tail race. Based on the recommendations of the seismologist, monitoring may also include the properties in the southeast and northwest quadrants. Monitoring will be coordinated with the affected property owners.

### **Minimization Measures**

Inspection of the Tail Race: This is discussed in the previous section.

Inspection of the Mill: Coordination for the inspection is ongoing with the property owner and will be completed closer to the date of construction and when access is permitted by the affected property owner.

Seismic Monitoring: This is discussed in the previous section.

Tail Race Treatment: Staging will be limited on the east side of the bridge and will not occur on top of the tail race. Additionally, if construction equipment exceeds the weight limits for the roadway and bridge, the project site will be accessed from the west side of the bridge to avoid the tail race. Rich Reisinger stated if the weight limit is exceeded, contractors would need a permit from PennDOT to bring in heavy equipment.

Aesthetic Treatment of the Bridge: The form liner, tinting/staining and guide rail and their treatment are discussed in previous sections.

## Rip-Rap

An additional minimization measure was discussed involving the placement of rip-rap on the O'Malley's property. It was agreed the rip-rap will be close in color to the stone found on the mill, but will need to meet the standards set by PennDOT for size.

Meeting Follow-up: A local quarry has been found which will be the source for the rip-rap used on the project. The stone is similar in color and type to the stone found on the mill foundation.

Because the consulting parties disagree with the project as proposed, Ediene Ringler asked who should be contacted to express their concerns. Rich Reisinger stated that they should provide comments to PennDOT officials in Harrisburg.



## MEETING MINUTES

**DATE:** July 8, 2016

**MEETING DATE:** June 22, 2016

**PLACE:** Little Britain Township Municipal Building, 323 Green Lane, Quarryville PA 17566

**TIME:** 7:00PM

**SUBJECT:** RBRP JV-273: S.R. 2002, Section 000 over Reynolds Run Bridge Replacement Project , Little Britain Township, Lancaster County  
Consulting Party Meeting

**ATTENDEES:** See Attached List

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The purpose of the meeting was to discuss the comments and questions received from consulting parties as a result of the March 3, 2016 Section 106 Determination of Effects memo and the March 22, 2016 Public Meeting. The minutes represent a combination of topics discussed at the previous public meeting, received in consulting party emails provided to project staff, and reported from the consulting party meeting.

Following introductions, Ken Wright provided an overview of the bridge project and the Rapid Bridge Replacement Project.

**Speed and Speed Limits:** The residents/consulting parties questioned the need for a longer and wider bridge believing it would increase speeding on the road. PennDOT establishes design criteria for each roadway type and Ken Wright explained the criteria for the bridge discussing the limitations and modifications for bridge width, length, lanes, and shoulders. The project is only approximately 250 feet long. The bridge width, increasing approximately 4 feet to a curb-to-curb width of 30'-2¼", would not affect the running speed of vehicles. The running speed is affected by many factors with one of them being the width of the travel lanes, shoulders and effective width of the roadway. Since this existing corridor will be narrower than the proposed structure (as this project is not reconstructing the entire corridor) the running speed of the corridor would not change and would likely not change within the 250 feet of the project. Jerry Emling explained that setting up speed monitoring could result in a higher speed limit posting throughout the corridor.

Bridge Structural Safety: The residents/consulting parties were concerned about the safety of the bridge because of its structurally deficient rating and the poor condition of the bridge deck. Ken Wright explained the meaning of structurally deficient and functionally obsolete and that it does not mean that the bridge is in danger of failing.

Truck Traffic: The residents/consulting parties asked whether truck traffic could be removed from the road. It is their concern that quarry trucks use Kirks Mill Road to avoid weight limit inspections. Relocation of the weight inspection site to a location that would require inspection of the trucks before accessing Kirks Mill Road could be pursued by the Township. The Township could also perform a weight restriction study for the roadway and post weight limit signs on the road to make it illegal for trucks to use it with the exception of local traffic and emergency vehicles. The PennDOT design manual stipulates that new structures cannot be constructed with a weight restriction, so the new bridge could not be posted with a weight limit. However, the township might elect based on studies, to place a weight limit on the roadway.

Plan Review: The plan reviewed at the meeting is attached. Following questions regarding the width of the bridge and the possibility of narrowing it, Ken Wright discussed a conceptual design option that decreased the curb-to-curb width of the bridge to approximately 24 feet. This option was developed in response to a question received during the March 22, 2016 public meeting asking whether additional right-of-way would be required if the bridge width was maintained at the current width. The design would require additional guiderail and right-of-way in the northeast quadrant within the O'Malley's Kirks Mill property. This option was deemed a poor alternative by the O'Malleys because of the proximity of the guiderail to the mill building and the need for additional right-of-way and additional fill on their property extending over the mill race.

The perception is that the guiderail, the increased width of the bridge and the roadway taper will direct the traffic into the mill. The O'Malleys commented that there was an accident and a police report from about two years ago. Ken Wright explained that the traffic will travel with the alignment, the centerline double yellow stripes, rather than the tapers of the outside edge of the asphalt. The new asphalt will be striped with line painting which will guide traffic and show that, although the shoulders are getting wider at the structure, the perceived travel corridor width remains the same. The guide rail is designed for each site based on the Length of Need (LON) and is based on characteristics of the roadway and the location of obstructions. The LON is designed to provide protection and shield the traveling public from these obstructions. The required LON for this site would extend beyond the dwelling on the mill property, if not flared as proposed on the plan, which would not be desirable. Also there is not enough room between the dwelling and the roadway for placement of guiderail due to the deflection distance required behind the guide rail.

It was clarified that the proposed replacement bridge's current, more detailed design will consist of five- 17" deep concrete spread box beams with a cast-in-place concrete deck supported on integral abutments with a span length of 44 feet. The curb-to-curb bridge width is 28'-2¼" with a total width of 30'-2¼". The bridge carries two 9'-0" wide lanes with 5'-0" nominal width shoulders that vary slightly in width due to the curvature of the roadway. By definition, the 44 feet represents the span length or the length of the bridge beams and the 48 feet, referenced on the project plan, represents the structure length or the point where the concrete of the bridge deck meets the concrete of the roadway.

**Hydraulics:** The bridge elevation will not be raised. The existing two span bridge with a center pier will be replaced with a single span. The bridge span length will increase from 34 feet to 44 feet due to the bridge type and construction, not to improve the hydraulic performance. The bridge is longer in order to place the new abutments approximately 5 feet behind the existing abutments.

**Tail Race:** The O'Malleys commented that the new plan shows a fill line into the tail race of the mill. As this is a conceptual plan, if the option was advanced, the final plan would show adjustments for the tail race to remain open.

**Tail Race Inspection:** Joanne Keim explained that the O'Malleys had an onsite meeting with P3 staff to discuss the inspection of the tail race prior to construction. The O'Malleys had previously expressed concern regarding impacts to the mill and tail race from vibration and heavy loads during construction. P3 staff will work with the O'Malleys to schedule the inspection and address the issues.

**Traffic Calming:** The residents surrounding the mill are working with the township on developing traffic calming measures. Measures suggested by the residents included a 3-way stop at Brabson Road, "Watch Children" and rumble strips. Jerry Emling explained that adding signs or rumble strips could cause driver confusion leading to accidents and might create a liability issue for the township. PennDOT Pub 236 states that the "Watch Children" signs "shall be authorized for use along roads where there are no sidewalks and where a number of children play or normally walk along the highway." The signs would be an option following specific requests from the public. Mr. Eidson whose property borders the bridge expressed concern during the meeting for his children who play in the area. Note: There are no official "Children at Play" signs; the "Watch Children" sign has replaced the former sign.

**Timber Bridge Structure:** Joanne Keim and Ken Wright provided information on timber bridge structures. Joanne Keim contacted Fulton, Providence and Drumore townships. Providence Township provided three examples and Fulton Township provided one example of timber frame bridges constructed between 2001 and 2009. Drumore Township did not respond to email or telephone requests for information. All of these bridges were located on roads with much lower daily traffic volumes than Kirk's Mill Road, and all were located on

township roads with the bridge under township ownership. PennDOT's design manual permits the use of timber bridges when the average daily traffic (ADT) is less than 750 vehicles or the average daily truck traffic (ADTT) is less than 25 vehicles. The estimates based on traffic monitoring on Kirks Mill Road are 802 ADT and 72 ADTT exceeding the limits set to permit the use of a timber bridge.

**Aesthetic Options:** At the request of the consulting parties, options for the aesthetic treatment of the bridge were discussed. It was their opinion that the proposed replacement concrete bridge would not blend with the historic district. Joanne Keim and Ken Wright provided examples of "stone" form liners from bridges located in Lancaster and Chester counties and a sample of the "stone" form liner. The bridge parapet treatment from the Chester County bridge was suggested by two of the consulting parties, the Bullitts and the Donohoes. Photos of the bridges are attached to the minutes. The consulting parties agreed that the use of a stone form liner would be a good option for the bridge aesthetic treatment. It would be more context sensitive to the surrounding historic district components as it would resemble the stone found on the mill building.

The use of a painted guide rail or a timber guiderail was discussed. The use of these options will be reviewed to determine whether it would be in accordance with PennDOT guidelines.

**Detour:** The detour has been revised, eliminating the use of Brabson Road. The Plain sect community may continue to use Brabson Road and Sleepy Hollow Road as an alternative which is shorter than the official detour route.

**Plain Sect:** Coordination was initiated with the Plain sect community including outreach to Emma Beiler, the Asheville Amish church district and ministers John M. Fisher, Benjamin S. Stoltzfus and Amos Stoltzfus. All received a map showing the local alternate detour for farm vehicles and horse-drawn buggy traffic that follows the route described previously. Ms. Beiler, whose farm is on Little Britain Road, stated that buggies use the bridge, but to her knowledge, school children do not cross the bridge to go to school. Note: The Asheville school is located on Ashville Road at Pine Grove, beside Octoraro Lake. This is more than 5 miles from the project bridge, and therefore children would not walk that distance using Kirks Mill Road.

**Contributing Property:** A question was asked regarding the absence of a contributing property on the plan in the northwest quadrant. Following the meeting, the plan preparer was contacted and stated that the building in that quadrant is not included on the plan because it is outside the study limits and outside the survey area. The property was reported in the Criteria of Effects Memo as a contributing resource and effects to the property were discussed. The building will not be physically affected by the project, but approximately 800 square feet of property will be acquired for placement of the new abutments, scour protection and guide rail.



Archaeological Artifacts: The O'Malleys requested that the artifacts removed from their property and the Eidson/McIntyre property in the southeast bridge quadrant be returned to them. Joanne Keim will contact the A.D. Marble archaeologist and arrange for the return.

Kirks Mill Historic District: Comments were received that the acreage for the district, the name of the waterway and the period of significance was incorrect. Joanne Keim explained that the 210 acres was reported in the Kirks Mill Historic District National Register nomination on file at the Pennsylvania Historical and Museum Commission (PHMC). Mr. O'Malley reported that the acreage he had found on the National Park Service site was a typographical error and the correct acreage is 210 acres. Joanne stated that the name for the waterway is Reynolds Run which is the name found on the United States Geological Survey (USGS) mapping for the Kirkwood quadrangle. For consistency USGS mapping is used for all projects and was also provided as part of the National Register nomination for the historic district. The period of significance was taken from the National Register nomination for the historic district which listed it as 1800-1899. Both Joanne and Cheryl Nagle stated that the nomination could be amended to reflect a revised and extended period of significance and suggested Mr. O'Malley contact the National Register staff at PHMC regarding submitting a revision.

Cheryl Nagle suggested that PennDOT should meet individually with property owners to address specific concerns relating to direct impacts to their properties. In particular the eminent domain process and the need for additional right-of-way from their property were questioned by the O'Malleys. The Eminent Domain provisions apply to all property acquisitions associated with this project (permanent right of way and temporary construction easements). Once a final plan is developed and approved by PennDOT, the property owners will be contacted to schedule individual meetings to discuss the right of way plan and the acquisition process. This is best addressed through direct coordination at that time with PennDOT outside the Section 106 consulting party process.

Previous comments not specifically addressed at the June 22, 2016 meeting.

Temporary Construction Easement (TCE): The O'Malleys were concerned that the TCE would affect the mill, tail race and water wheel. The current plan TCE ends approximately 25 feet from the tailrace.

Need for a Lengthened and Widened Structure: Does the bridge need to be wider and higher?  
Answer: The bridge cannot be narrower than the approach roadway. The bridge width meets the PennDOT design criteria for this roadway classification and service characteristics. As previously discussed, the bridge was lengthened to accommodate the bridge type and construction and to permit the placement of the new abutments approximately 5 feet behind the existing abutments.

Height of parapets/barriers: A consulting party asked that if the bridge could not be narrowed, could the barriers on the bridge be taller to give the appearance of a narrowed structure, thereby slowing traffic. Answer: There are five driveways within 200' of either side of the bridge. Providing taller bridge barriers would likely restrict sight distance on all of these driveways which would decrease safety. Sight distance is provided so that vehicles pulling out of these driveways will be able to see traffic approaching them and to allow approaching traffic to see vehicles pulling out soon enough to be able to come to a stop. The perception of the road being narrower would vary between each driver and therefore it would be difficult to provide a height adequate to accomplish this perception.

Design exception on option for lane/shoulder widths: The residents/consulting parties asked whether the lane and shoulder widths could be narrower if the Township accepted maintenance. Answer: PennDOT is not willing to turn the bridge over to the Township.

One Lane Structure: The residents/consulting parties asked whether a one lane structure could be constructed. Answer: A one lane structure would not meet PennDOT's design criteria for this roadway classification and service characteristics. A one lane bridge would create an hour glass effect on a corridor where drivers expect a two lane roadway and are traveling at a speed and pace for the characteristics of that corridor. Providing a one lane bridge would be a safety issue as the bridge would be narrower than the approach roadway.

Covered bridge: The consulting parties asked whether a covered bridge with a Burr Arch would be an option. Answer: A covered bridge could not be constructed. Typically only three types of timber bridges are allowed by PennDOT guidance: 1. Glulam Beams with a Glulam deck 2. Glulam panel bridge 3. Glulam deck on steel girders. Covered bridges are not an option for new construction. None of these could be constructed at this site because both the ADT and ADTT exceed the limits permitted for timber bridges as discussed previously. In addition, a covered bridge would result in limited sight distance for users of the driveway west of the proposed structure.

Section 106 Effect Finding for Project: The consulting parties disagree with the effect finding and believe the project will have a negative effect on the historic district. Answer: The Section 106 process seeks to consult with all parties to resolve effects to the resource with the end goal of developing measures that would minimize effects to the historic district. Consultation is ongoing.

**Follow-Up Items:**

|   | <b>Follow-up Item</b>   | <b>Responsible Party</b> | <b>Reporting back to</b>        | <b>Target for Completion</b> |
|---|---|--------------------------|---------------------------------|------------------------------|
| 1 | Tail Race Inspection  | HDR                      | WGJV                            | 7/18/2016                    |
| 2 | Finalize Aesthetic Design with regard to use of form liner                              | HDR/WGJV                 | PennDOT/PHMC Consulting Parties | 8/05/2016                    |
| 3 | Determine whether painted guide rail or timber guide rail would meet PennDOT guidelines | HDR/WGJV                 | PennDOT                         | 8/05/2016                    |
| 4 | Coordinate return of archaeological artifacts to property owners                        | Joanne Keim              | Property Owners                 | 8/05/2016                    |
| 5 | Locate septic system and place on project plan  | WGJV/HDR                 |                                 | 8/05/2016                    |
| 6 | Determine if vibration monitoring is appropriate*                                       | HDR                      | WGJV                            | 9/30/2016                    |
| 7 | Follow-up Consulting Party meeting  | Joanne Keim              | HDR/WGJV, Consulting Parties    | 9/30/2016                    |

\*The need for vibration monitoring during construction will be based on the pre-construction inspection of Kirks Mill. The inspection will be scheduled at a time mutually agreed upon by the inspector and mill owner.

Prepared by Joanne Keim 6/29/2016.



Meeting Name: Consulting Party Meeting – JV-273

Date: June 22, 2016



Location: Little Britain Township Municipal Office, Quarryville, PA Time: 7:00 p.m.

Pennsylvania Rapid Bridge Reconstruction Project

Attendees:

| On the phone? | Name                          | REPRESENTING Company                   | Email                  | Phone           |
|---------------|-------------------------------|--|------------------------|-----------------|
|               | Ken Wright                    | HDR                                    | ken.wright@hdrinc.com  | 412-497-6000    |
|               | Joanne Keim                   | AD Marble                              | jkeim@admarble.com     | 717-731-9588    |
|               | Rich Reisinger                | PennDOT District 8                     | ricreising@pa.gov      | 717-787-4861    |
|               | STUART NELSON                 | REP. BRYAN CUTLER                      | SNELSON@PAHOUSEGOV.COM | 717-284-1965    |
|               | James Bullitt                 | SELF 231 BRADSON RD<br>HASTON PA 17033 | J.BULLITT@PA.NET       | 717 548-3898    |
|               | Juan Bullitt                  | self 231 Bradson Road                  | supbb@pa.net           | 717-548-3898    |
|               | Carol L. Bower                | Self 230 Bradson                       | 42bowercjl@gmail.com   | 717-548-2257    |
|               | Barton K Bower                | " "                                    | bbower1@epix.net       | " " "           |
|               | Julia Moore                   | RETTEW                                 | jmoore@rettew.com      | 814-321-2875    |
|               | Cheryl Nagle                  | PASTHO                                 | chnagle@pa.gov         | 717 772 4519    |
|               | Frank O'Malley                | 348 Kays Manor                         | KOMALLOFF1@COMCAST.NET | 717-548-4632    |
|               | FRANK +<br>MARGUERITE DONOHUE | 344 " " "                              | mtdcom@epix.net        | 717-548-2009    |
|               | Margaret Delandis             | Little Britain Twp                     | lbte@littlebritain.org | 717-529-2373 x1 |

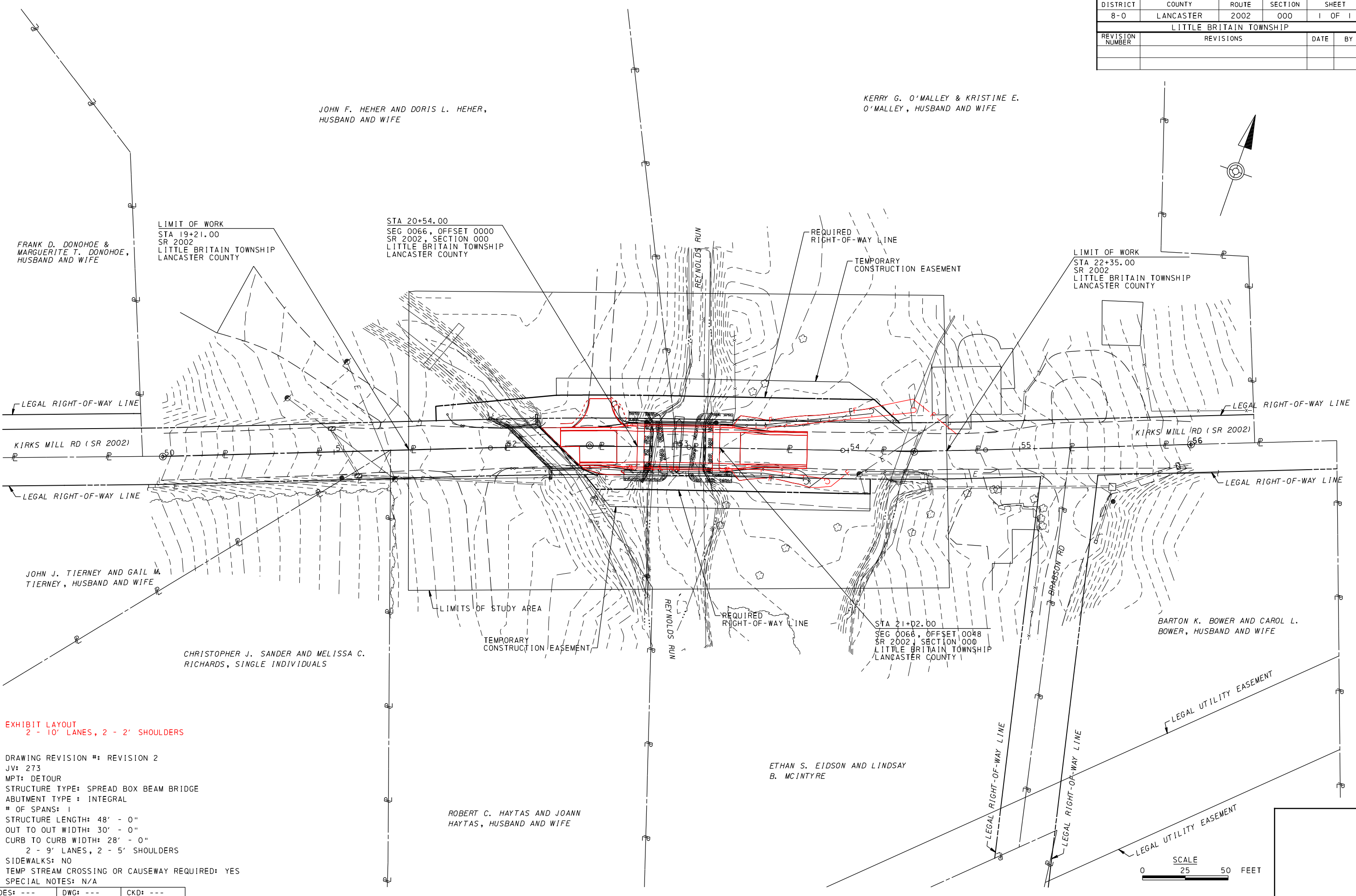
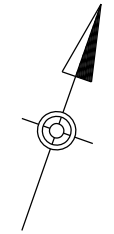




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|-------------------------|-----------|-------|---------|--------|
| DISTRICT                | COUNTY    | ROUTE | SECTION | SHEET  |
| 8-0                     | LANCASTER | 2002  | 000     | 1 OF 1 |
| LITTLE BRITAIN TOWNSHIP |           |       |         |        |
| REVISION NUMBER         | REVISIONS | DATE  | BY      |        |
|                         |           |       |         |        |

JOHN F. HEHER AND DORIS L. HEHER,  
HUSBAND AND WIFE

KERRY G. O'MALLEY & KRISTINE E.  
O'MALLEY, HUSBAND AND WIFE



FRANK D. DONOHOE &  
MARGUERITE T. DONOHOE,  
HUSBAND AND WIFE

LIMIT OF WORK  
STA 19+21.00  
SR 2002  
LITTLE BRITAIN TOWNSHIP  
LANCASTER COUNTY

STA 20+54.00  
SEG 0066, OFFSET 0000  
SR 2002, SECTION 000  
LITTLE BRITAIN TOWNSHIP  
LANCASTER COUNTY

LIMIT OF WORK  
STA 22+35.00  
SR 2002  
LITTLE BRITAIN TOWNSHIP  
LANCASTER COUNTY

LEGAL RIGHT-OF-WAY LINE

KIRKS MILL RD (SR 2002)

LEGAL RIGHT-OF-WAY LINE

JOHN J. TIERNEY AND GAIL M.  
TIERNEY, HUSBAND AND WIFE

CHRISTOPHER J. SANDER AND MELISSA C.  
RICHARDS, SINGLE INDIVIDUALS

LIMITS OF STUDY AREA

TEMPORARY CONSTRUCTION EASEMENT

REYNOLDS RUN

REQUIRED RIGHT-OF-WAY LINE

STA 21+02.00  
SEG 0066, OFFSET 0048  
SR 2002, SECTION 000  
LITTLE BRITAIN TOWNSHIP  
LANCASTER COUNTY

BARTON K. BOWER AND CAROL L.  
BOWER, HUSBAND AND WIFE

ETHAN S. EIDSON AND LINDSAY  
B. MCINTYRE

ROBERT C. HAYTAS AND JOANN  
HAYTAS, HUSBAND AND WIFE

LEGAL RIGHT-OF-WAY LINE

LEGAL RIGHT-OF-WAY LINE

LEGAL UTILITY EASEMENT

SCALE  
0 25 50 FEET

EXHIBIT LAYOUT  
2 - 10' LANES, 2 - 2' SHOULDERS

DRAWING REVISION #: REVISION 2  
JV: 273  
MPT: DETOUR  
STRUCTURE TYPE: SPREAD BOX BEAM BRIDGE  
ABUTMENT TYPE: INTEGRAL  
# OF SPANS: 1  
STRUCTURE LENGTH: 48' - 0"  
OUT TO OUT WIDTH: 30' - 0"  
CURB TO CURB WIDTH: 28' - 0"  
2 - 9' LANES, 2 - 5' SHOULDERS  
SIDEWALKS: NO  
TEMP STREAM CROSSING OR CAUSEWAY REQUIRED: YES  
SPECIAL NOTES: N/A

DES: --- DWG: --- CKD: ---

USER: TRMCKI.NL PLOT DRIVER: PymDOT.PDF Mono.plt.ctb PLOT DATE: 06-21-2016 9:54:15 AM  
 PATH: O:\00001\CON094634\0000000245595\6\_0\_CAD\_BLM\6\_2\_Wrk\_In\_Progress\6\_2\_3\_Exhibit1.FTI.es\NIPA 10-21-2015  
 FILE: RBRP-JV273-NIPA-01\_CP\_EXHIBIT1.dgn MODEL: Dwg fou 1

Examples of Form Liners for SR 2002 Reynolds Run Bridge Replacement Project Lancaster County



Photo 1: SR 3014 Lees Bridge Road, West Nottingham Township, Chester County. The Original 1915 bridge had a similar stone parapet with concrete coping.



Photo 2: Bowmansville Bridge on SR 625 in Brecknock Township, Lancaster County. The bridge form liner was designed to mimic the stone in the roller mill adjacent to the bridge.





Photo 3: The Bowmansville roller mill and saw mill. The Bowmansville Roller Mill Historic District is listed in the National Register (1990). The bridge is a non-contributing feature of the historic district.



Photo 4: Bowmansville Bridge and mills.





Photo 5: SR 625 with the Bowmansville Roller Mill at the right of photo and the miller's house to the left in photo.

Examples of Form Liners and Guide Rail for SR 2002 Reynolds Run Bridge Replacement Project Lancaster County

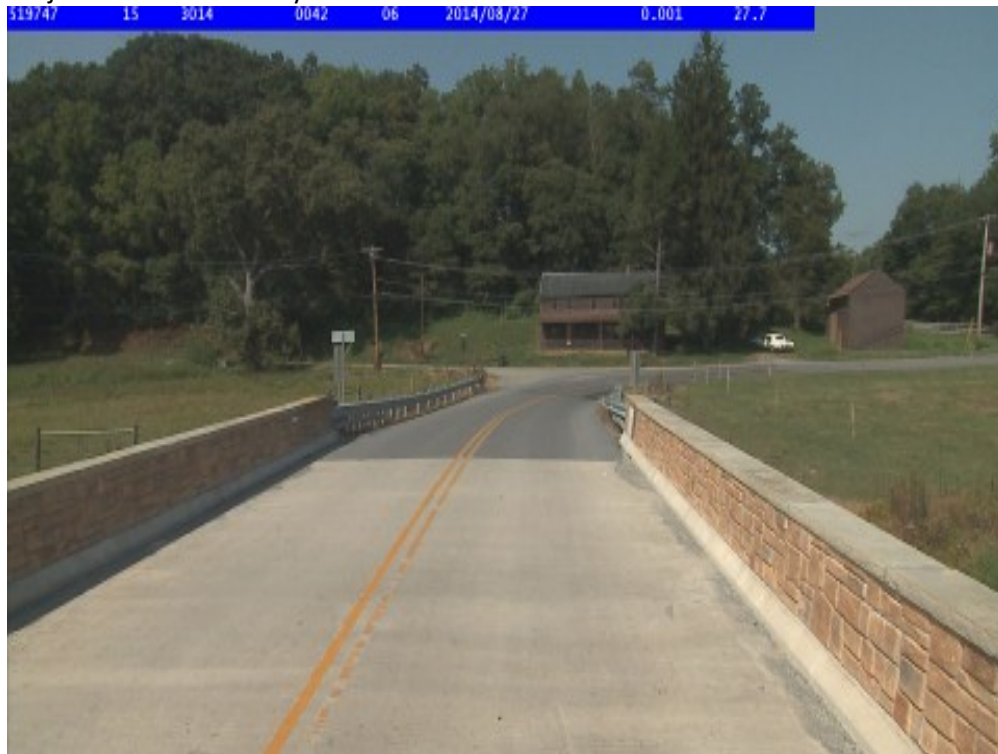


Photo 1: SR 3014 Lees Bridge Road, West Nottingham Township, Chester County. The Original 1915 bridge had a similar stone parapet with concrete coping.

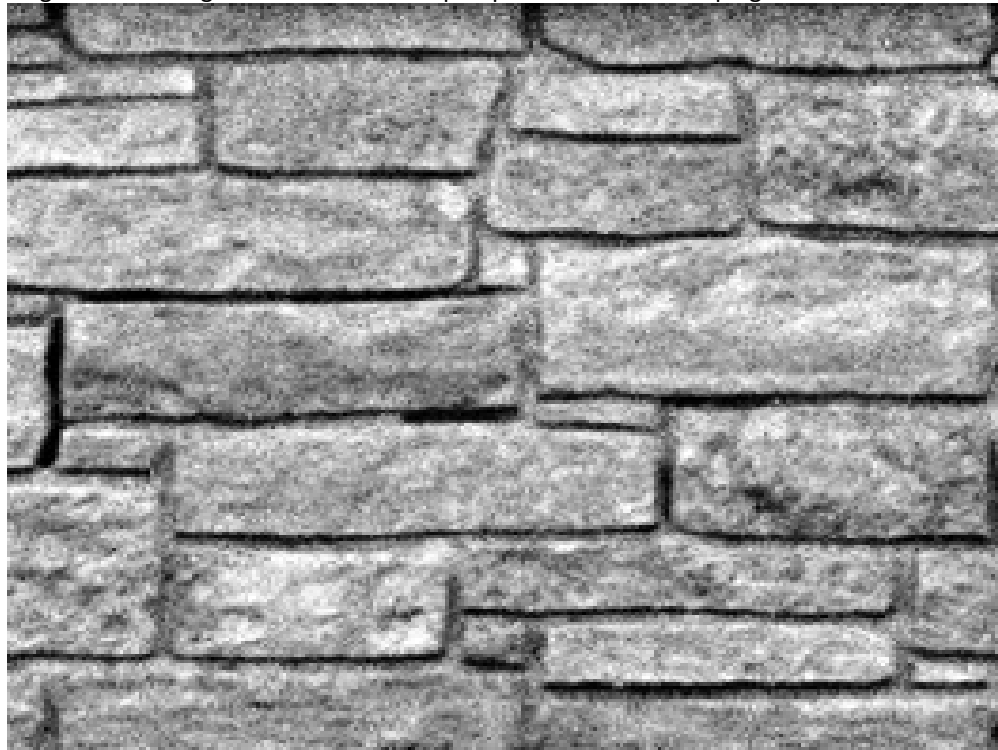


Photo 2: #12005 Bearpath stone pattern from Custom Rock Formliner with 1" Relief and mortar joint (customrock.com).



Photo 3: #12010 Minnehaha Blend stone pattern from Custom Rock Formliner with 5/8" Relief and mortar joint (customrock.com).



Photo 4: #1208 Drystack stone pattern from Custom Rock Formliner with 2" Relief and no mortar joint (customrock.com)



Photo 5: #1305 Vista Drystack stone pattern from Custom Rock Formliner with 4" Relief and no mortar joint (customrock.com)

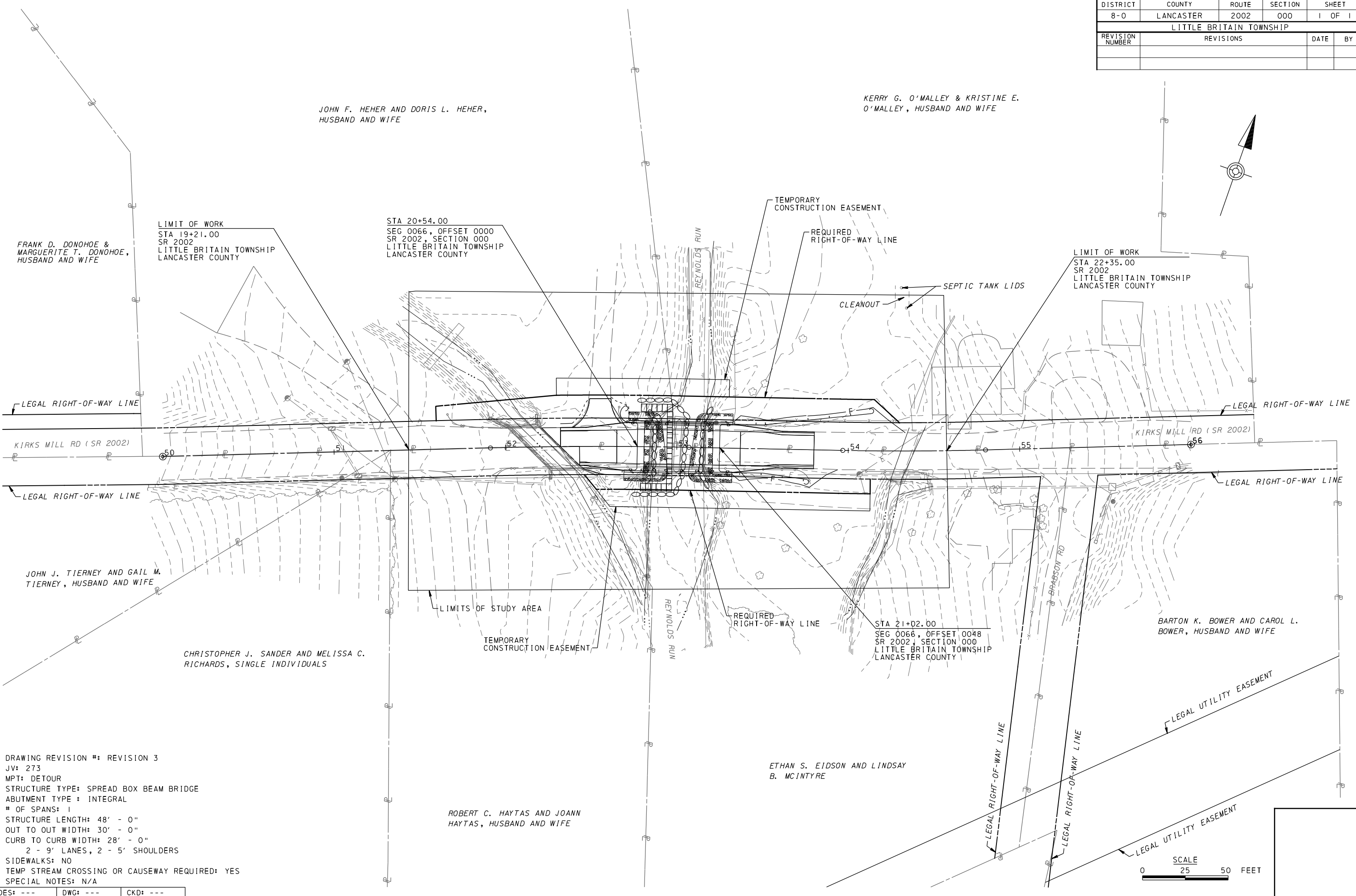
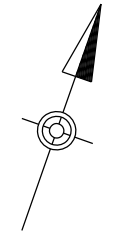


Photo 6: Painted guide rail.

|                         |           |       |         |        |
|-------------------------|-----------|-------|---------|--------|
| DISTRICT                | COUNTY    | ROUTE | SECTION | SHEET  |
| 8-0                     | LANCASTER | 2002  | 000     | 1 OF 1 |
| LITTLE BRITAIN TOWNSHIP |           |       |         |        |
| REVISION NUMBER         | REVISIONS | DATE  | BY      |        |
|                         |           |       |         |        |

JOHN F. HEHER AND DORIS L. HEHER,  
HUSBAND AND WIFE

KERRY G. O'MALLEY & KRISTINE E.  
O'MALLEY, HUSBAND AND WIFE



USER: BPEPE    PLOT DRIVER: P:\mtdot\pdf\mono.plt    PLOT DATE: 09-22-2016    8:48:28 AM  
 PATH: O:\00001\CON0094634\00000000245595\6\_0\_CAD\_BLM\6\_2\_Wrk\_Tn\_Progress\6\_2\_3\_Ext\1611\_Files\NIEPA 10-21-2015  
 FILE: RBRP-JV273-NIEPA-01

DRAWING REVISION #: REVISION 3  
 JV: 273  
 MPT: DETOUR  
 STRUCTURE TYPE: SPREAD BOX BEAM BRIDGE  
 ABUTMENT TYPE: INTEGRAL  
 # OF SPANS: 1  
 STRUCTURE LENGTH: 48' - 0"  
 OUT TO OUT WIDTH: 30' - 0"  
 CURB TO CURB WIDTH: 28' - 0"  
 2 - 9' LANES, 2 - 5' SHOULDERS  
 SIDEWALKS: NO  
 TEMP STREAM CROSSING OR CAUSEWAY REQUIRED: YES  
 SPECIAL NOTES: N/A

DES: ---    DWG: ---    CKD: ---

