



# MILLVALE MOBILITY

Connecting Millvale to the River and the Region

Remaking Cities Institute, Carnegie Mellon University, May 2018

A Research Report by the Remaking Cities Institute Carnegie Mellon University  
May, 2018

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Image Source: Jian-Xiao Ge (2017)



# EXECUTIVE SUMMARY

As Pennsylvania's first ecodistrict borough, Millvale is working hard to reclaim its natural heritage and integrate its distinctive natural resources into a better way of life. One of Millvale's greatest assets is its proximity to the Allegheny River and the Three Rivers Heritage Trail. But the town is disconnected from the river, the Riverfront Park, the trail, and marina by a highway and railroad tracks, which obstruct the view of the river as well as access.

This research project was undertaken to identify and assess the feasibility of strategies to improve the safety and enhance the quality of access between Millvale and the Allegheny Riverfront, particularly at the complicated intersection of PA Route 28 Exit 3 and East Ohio Street, known locally as "The Curve." The prominence of this gateway location makes improvement of the area a potential catalyst for further revitalization of the Borough.

Building on seven long-term connection strategies created in a Carnegie Mellon's graduate urban design studio in the fall of 2017, the Remaking Cities Institute research team developed a set of eight short-term interventions:

- |                        |                        |
|------------------------|------------------------|
| 1. Improved Crosswalks | 5. Smart Signalization |
| 2. Painted Walls       | 6. Entry Signage       |
| 3. Street Trees        | 7. Street Banners      |
| 4. Traffic Lights      | 8. Artistic Lighting   |

Working with members of the project's steering committee, the team evaluated these in terms of their physical, financial, and procedural impacts. From the research, we determined that planting street trees, painting murals on the highway walls, and installing new entry signage would have a high impact and good feasibility, and should be prioritized. Furthermore, we recommend considering street banners and improved crosswalks as collateral projects, as they are lower-cost interventions with a significant impact. Combining them with any of the three primary strategies will enhance the overall impact.

Next steps include building community awareness of the potential of better connections, working with key stakeholders on improvements that benefit both businesses and community, and building on riverfront events, such as the food truck celebration this spring. Although the private marina straddles the site of the now-demolished 43rd Street Bridge to Lawrenceville, according to County records, the Borough still owns the right-of-way. Whatever the ownership, this is the site that gives the best view of the river and the only view from the approach. Converting this space from boat storage to a plaza (with café or restaurant in the adjacent brick building) is the best opportunity for a public-private partnership that will benefit both business and community, as well as create a regional asset for trail users. All the interventions require the review and support of PennDOT, which can be initiated by the Borough with a formal letter (draft provided) requesting consideration of proposed improvements.

**PROJECT PLAN**

As described in the text to the right, the project plan outlined below guided the research team and steering committee through-out the project.

**JANUARY**

WORK PRODUCTS	STEERING COMMITTEE INPUT
Report on existing conditions and connections options generated by the studio	Final project schedule and scope (any revisions to work plan)
Evaluation format: list of proposed criteria for comparison (short-term and long-term)	Comments on connection options
Proposed project work plan	Identification of any other options to be considered or issues to investigate
	Revision of criteria list, if any

**FEBRUARY**

WORK PRODUCTS	STEERING COMMITTEE INPUT
Finalized set of options, including any additional options of documentation	Identification of most promising short-term and long-term connection strategies (2-3 each) to be pursued
Comparison of options according to criteria	Issues or questions to be addressed for each strategy (guide for research investigation)

**MARCH**

WORK PRODUCTS	STEERING COMMITTEE INPUT
First report on selected options, including more developed drawings (new information gathered from Millvale, County, and/ or PennDOT) and preliminary evaluation	Comments on options and preliminary evaluation
	Direction regarding further research

**APRIL**

WORK PRODUCTS	STEERING COMMITTEE INPUT
Revised report on selected options including completed comparative evaluation	Final agreement on evaluation and organization of final research report
Table of contents for final report	Guidance regarding content of narrative

**MAY**

WORK PRODUCTS	STEERING COMMITTEE INPUT
Draft of final report for Committee review, discussion, and approval	Review and approval of draft report

# PROJECT BACKGROUND

The research was supported by a Smart Mobility Challenge Grant from Carnegie Mellon University's Traffic21 Institute and Mobility21 National University Transportation Center, interdisciplinary research centers for the development and deployment of smart transportation technologies. The project methodology included research efforts conducted by the Carnegie Mellon graduate students during the fall studio, which outlined long-term strategies for connections between the town and the riverfront by having conversations with locals at Millvale Days, meeting with the Millvale Community Development Corporation, and more. The second leg of this study consisted primarily of steering committee meetings to identify short-term strategies through iterative design processes. Stakeholder involvement is discussed in more detail on pages 42-49. The railroad company was not involved in these studies, but should be brought into future discussions.

The adjacent page shows the calendar prepared for the second leg of the project, with work products delivered to the steering committee and the goal for committee input for the meeting.

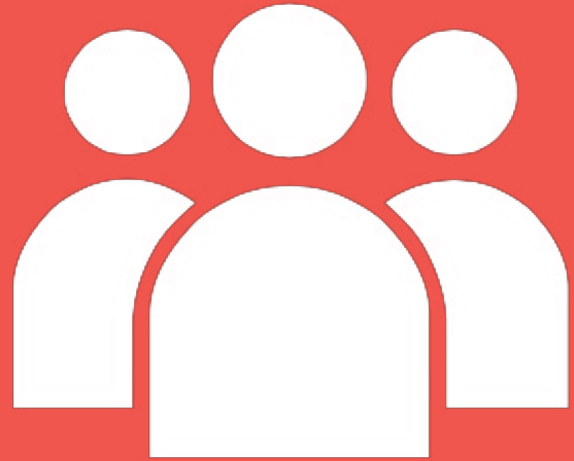
The Remaking Cities Institute team consisted of Stefani Danes, RA LEED-AP, Adjunct Professor at Carnegie Mellon and Research Fellow at RCI and Master of Urban Design students Rebecca Lefkowitz and Sai Prateek Narayan.





## TO IMPROVE SAFETY & ACCESSIBILITY

The connection between Millvale and the Allegheny riverfront lacks clarity and is dangerous to access, particularly for pedestrians and cyclists. The highway overpasses, the speed of motorists on East Ohio Street's off-ramps, the railroad crossing, and lack of consideration to the pedestrian experience are the primary obstacles to be addressed.



## TO INVOLVE LOCAL STAKEHOLDERS

Involving local stakeholders in the design and implementation process of any project isn't only for the purpose of creating a more grass-rooted project, but also for increasing citizen participation in proposed events and activities. Allowing locals to engage with the development of their town establishes a momentum that will carry on to more development and activities.

# WHAT SHOULD BE THE PRIMARY OBJECTIVES?



## TO INITIATE GREATER INVESTMENT

Any project undertaken by the Borough of Millvale should be evaluated in terms of its ability to incentivize greater investment in the businesses, services, and residents of Millvale. Where the connection between the town and the Allegheny riverfront is concerned, the focus should lie on spaces and events adjacent to East Ohio Street and the Millvale Riverfront Park.



*Image Source: Jian-Xiao Ge (2017)*



# LONG TERM CONNECTIONS: AN OVERVIEW



Seven proposals for long-term interventions to connect Millvale and its riverfront were developed. They were presented at a community meeting and discussed by the steering committee. As long-term (10-20 year) interventions, their potential benefits were acknowledged, so they became a contextual framework for the research. They were summarized here, preceded by a brief synopsis of the existing access problems.

## Proposals:

- Pedestrian Tunnel (Jianxiao Ge)
- Into the Berm (Sai Prateek Narayan)
- Optimize Traffic (Chi Zhang)
- Ramp to the River (Sujan Das Shrestha)
- Pass Through (Chase Kea)
- Bridge from the Berm (Deepanshi Sheth)
- Riverfront Lookout (Rebecca Lefkowitz)





# EXISTING ACCESS

There are a variety of physical and policy obstacles that make the existing riverfront access unsafe and confusing for pedestrians, cyclists, and motorists alike. The series of photos to the left illustrate the issues:

1. From Grant Avenue, there is no clear indication that the town continues past the highway overpasses.

2. From the perspective of a driver, there is not much to indicate a pedestrian or bicycle crossing.

3. There is little appeal to the pedestrian on East Ohio Street, even if there are crossings painted.

4. This pedestrian crossing, though accompanied by signals, is relatively underused by pedestrians and ignored by motorists.

5-6. Pedestrian paths end here, under the second highway overpass. Again, there is no indication that there is anything worth going to beyond this point.

7. The railroad crossing here lacks pedestrian-scaled signage.

8. The overpass for another set of railroad tracks is dark and uninviting, and lacks a clear space for pedestrians.

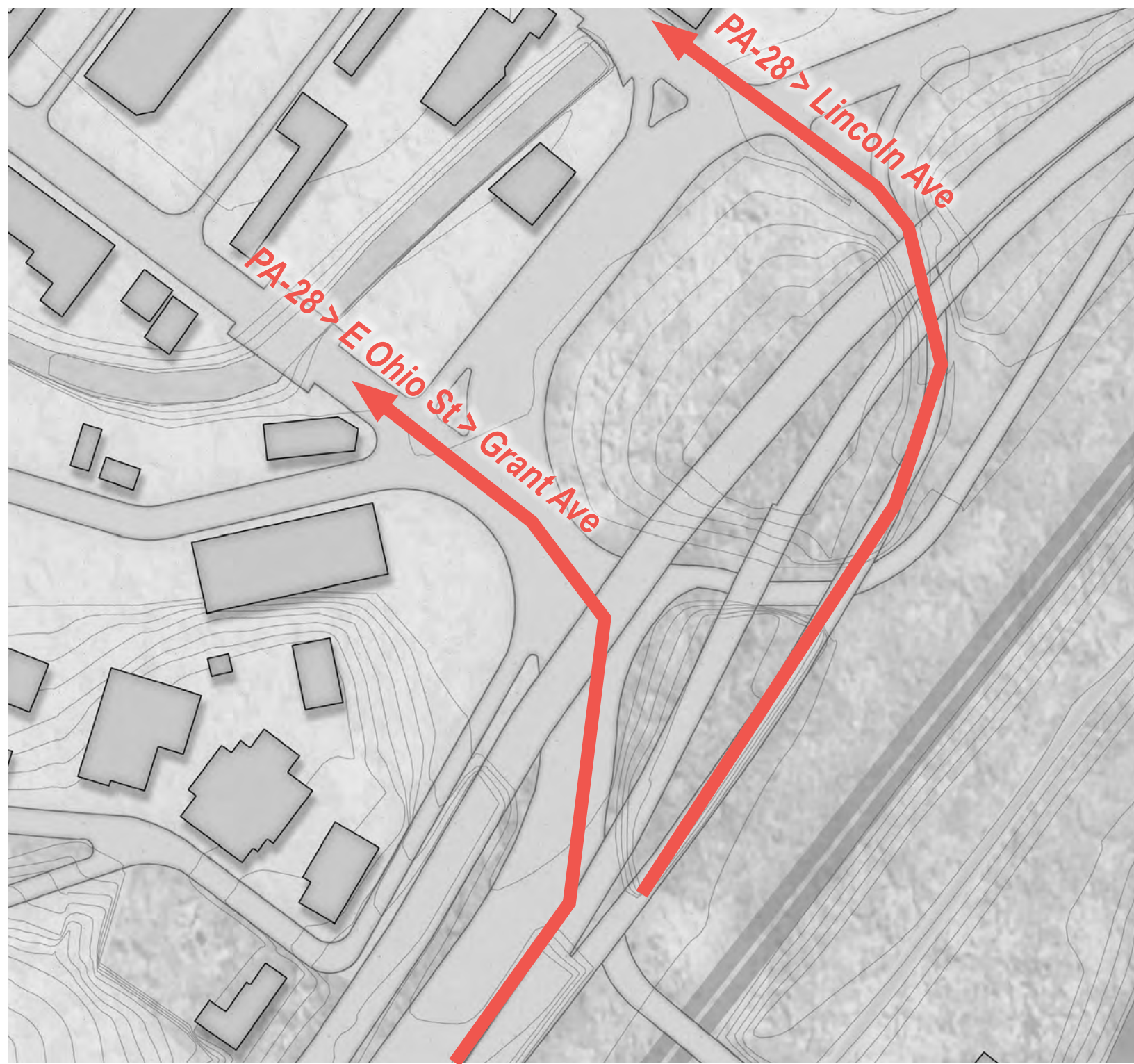
9. Even once one traverses through all the major physical obstructions, there is still no indication that Millvale owns any piece of the riverfront. This area, owned by Millvale but now used by the private marina, is filled with boating equipment that obstructs the view to the Allegheny River.

10-12. To access the Millvale Riverfront Park or the Three Rivers Heritage Trail, one must make a 90-degree turn and continue even further down River Front Drive, past a nondescript parking lot, which again lacks signage and is largely unappealing to pedestrians and motorists alike.

These images only address the access from Millvale to the riverfront, which is only half the problem. Consideration should also be made for the access to Millvale by trail users.



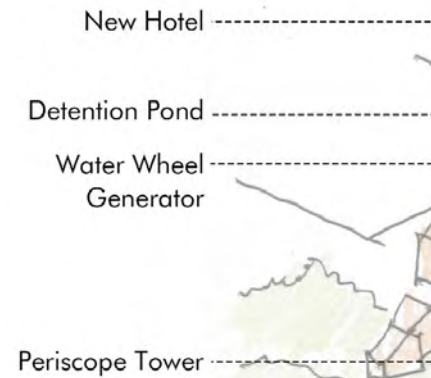






# HIGHWAY CONSIDERATIONS

In addition to the eye-level physical and policy obstructions in Millvale's riverfront access (and vice versa), it was identified that there is a redundancy in the exit ramps from PA-28. The adjacent image highlights the two highway exit ramps that enter into Millvale. As one long-term strategy to enhance the connection to the riverfront, PennDOT and the Borough of Millvale should investigate the elimination of the ramp leading from PA-28 to Lincoln Avenue. This would require the change of signage and signalization at 40th Street. This move, though requiring lots of collaboration and deliberation with PennDOT, the Borough, and other stakeholders, could make a big difference by reducing redundancies for motorists and placing more emphasis on the entrance of Millvale onto Grant Avenue, which is clearly a more commercially-oriented street versus the more residential Lincoln Avenue.



# PEDESTRIAN TUNNEL

This option explores connecting to the river by travelling underneath the highway.

## DESCRIPTION

This scheme not only gets people towards the riverfront but also connects the Girty's Run to the Allegheny River in a more creative & ecological way. By removing the original factory on the north side of the site, a new underground park will be created & connected both our site & new hotel by the underground path. This park would also serve as a detention pond to store water. The original buried water channel to Allegheny is enlarged as a pedestrian tunnel to lead people from community to riverfront. When a flood is coming, the upstream detector will trigger alarms in the park, allowing people to evacuate from the park at once. Waterwheel generator and hydroelectric dam can be parts of the Millvale's Ecodistrict plan to provide electricity to the residents.

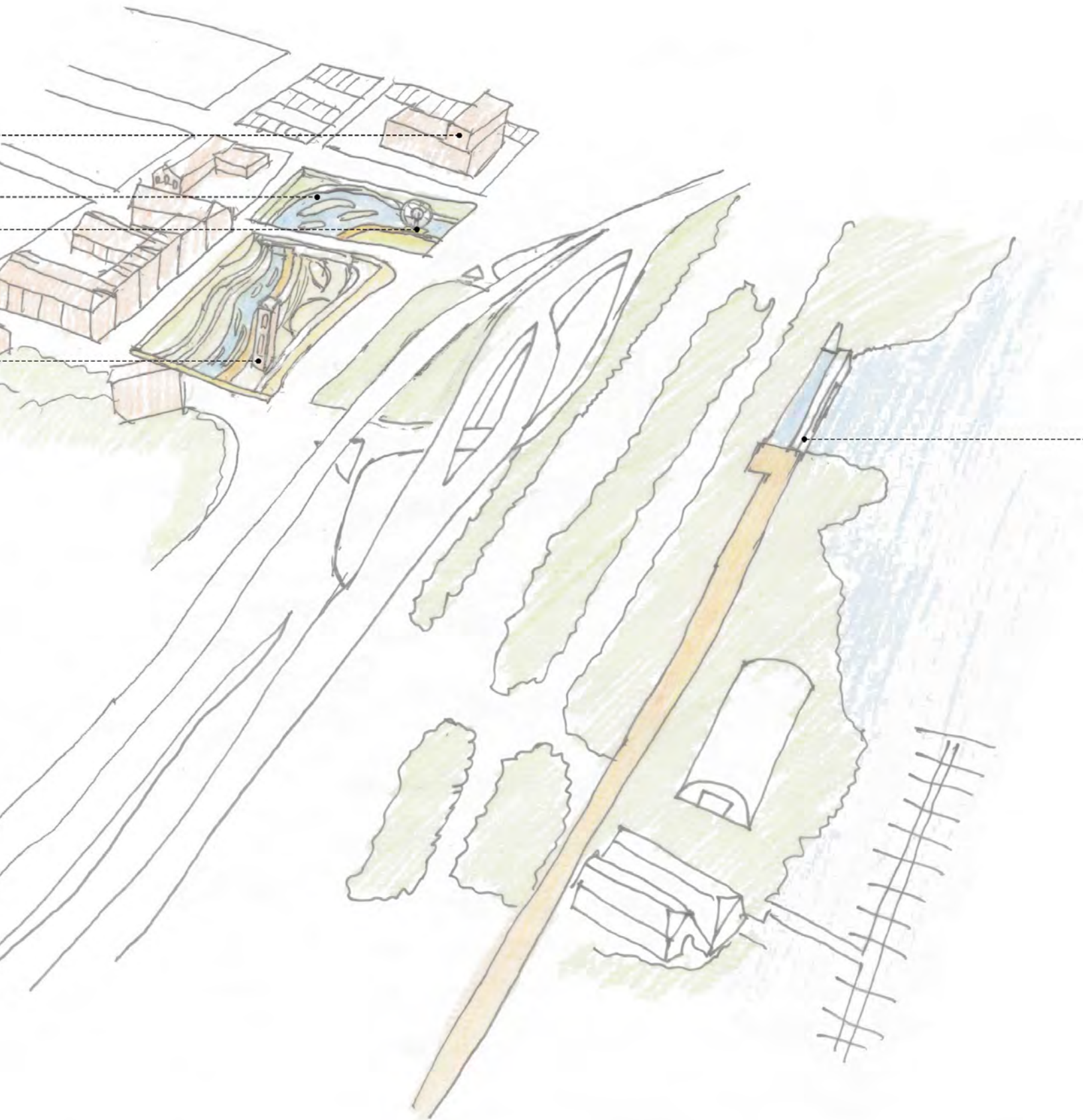
## ANALYSIS

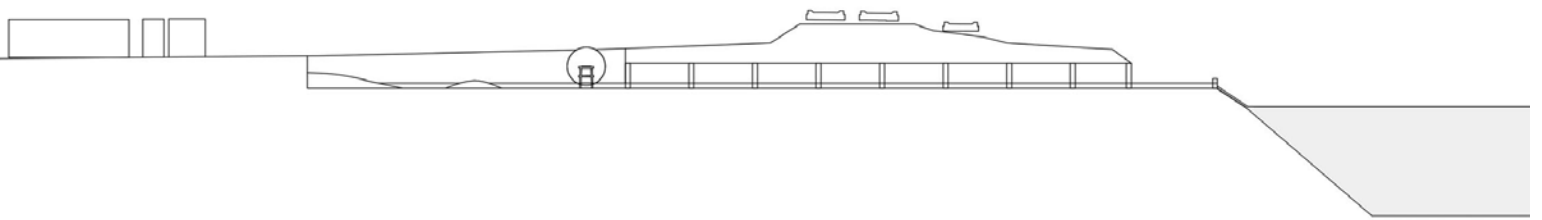
This scheme would help move floodwaters from Girty's Run towards the Allegheny with its expansion of the culvert, but could be costly and would require input and permission from the factory, PennDOT, and the railroad company. This scheme is probably a longer-term solution to the flooding problems, which means Millvale may have to solve the problem of people's movement to the riverfront in a shorter-term, temporary way until this project could be completed.

## OPPORTUNITIES CREATED

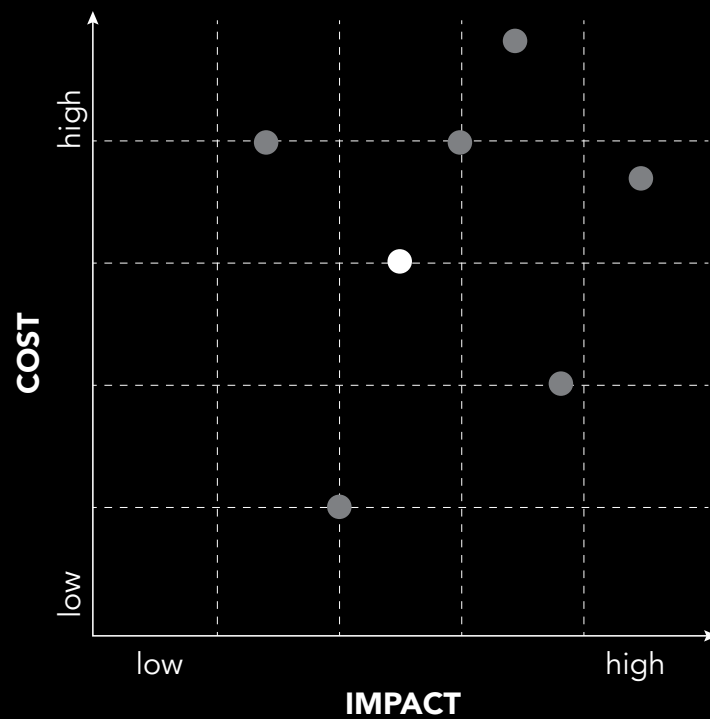
The underground park which between the new community park and hotel would have to be regarded and could be a great location for ecological education and some small-scale retailers, like a coffee shop or bike mechanic. The endpoint at the Riverfront Park would also be a great candidate for future redevelopment.



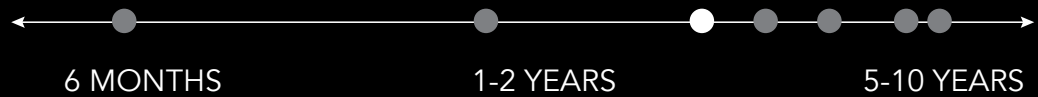




## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?







# INTO THE BERM

This option explores connecting to the river by travelling through the highway.

## DESCRIPTION

By redirecting Girty's Run & adjusting East Ohio Street to flow alongside it, traffic is diverted & vehicles slowed down in order to increase pedestrian safety. Secondly, flattening the berm & providing a more permeable structure under the highway, provides a visual from Millvale towards the Allegheny River. Lastly, replacing the ramp from the highway to Lincoln Avenue with a ground-level pedestrian walkway & landscaping provides a direct path to the river.

## ANALYSIS

While this scheme would help move floodwaters from Girty's Run towards the Allegheny with its redirecting of the culvert, this phase would be costly & would require input and permission from both PennDOT & the railroad company. This scheme also helps redirect traffic & slow vehicular speeds to a great deal. However, as the remaining phases involve a great deal of removal of infrastructure (namely the berm, the highway support and the ramp from I-28 to Lincoln Avenue), there would also have to be a short-term solution.

## OPPORTUNITIES CREATED

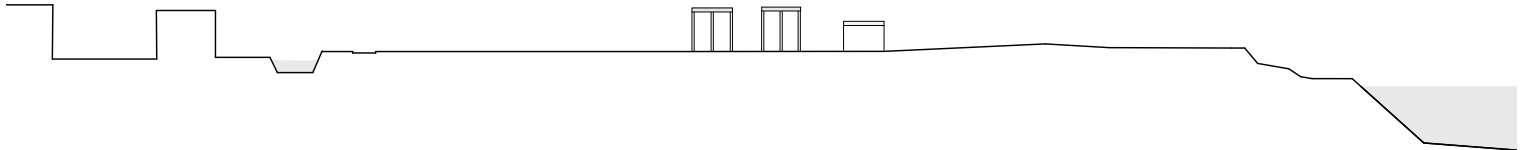
The creation of a larger site (formed by the berm and the current gateway of Millvale) could lead to the creation of a large park at the entrance of Millvale, providing a site for various activities and events, thereby attracting visitors to Millvale. This pedestrian path to the water could potentially connect to the nature trail and direct trail-walkers to the town. It goes without saying that there would have to be a attractive or eye-opening location at the end of the path for residents and visitors, such as a riverfront revitalization park, a kayaking school or a museum indicating Millvale's significance at the town's peak.



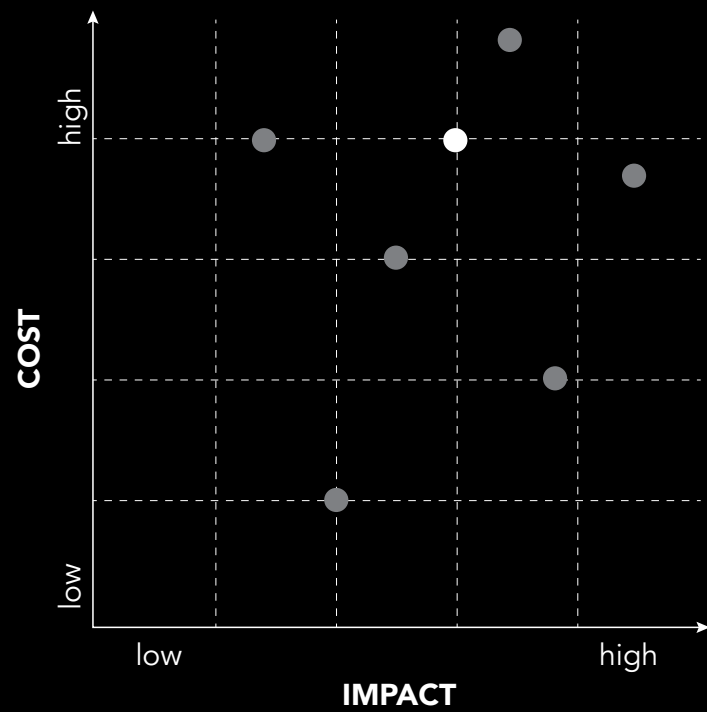
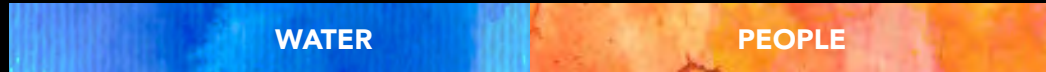




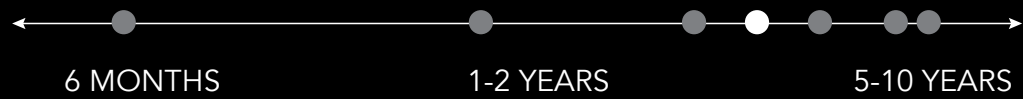




## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?







# OPTIMIZE TRAFFIC

This option explores connecting to the river by travelling through the highway.

## DESCRIPTION

This "Through" plan make the maximum use of the sidewalk to reach riverfront, which allows people using the former passage, but try to make it safer and more pedestrian-friendly. There are 8 main strategies. 1. Use speed hump and welcome billboard to give drivers the awareness of leaving the highway. 2. Reduce the border radius of East Ohio Street at Grant Avenue. 3. Use speed humps as passways. 4. Plant trees along the passage to riverside. 5. Design pockets parks around. 6. Use visible pedestrian sign (keep the existing blue lane). 7. Change the position of traffic lights. 8. Put art paints and graffiti on the wall of highway.

## ANALYSIS

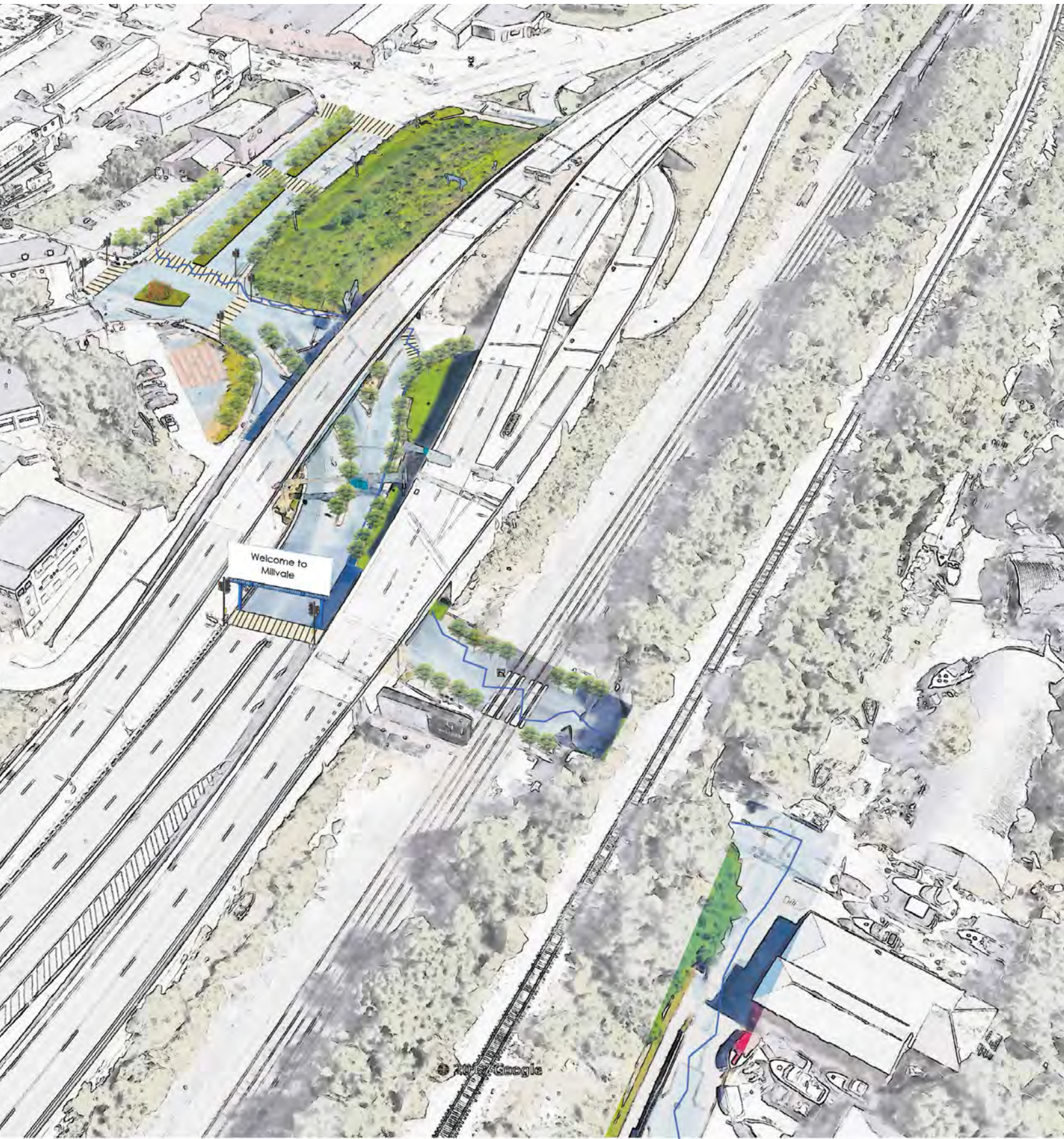
This scheme is a little conservative but relatively realistic. The biggest benefit is we slow the traffic down with some "soft" strategies so that people would feel safer and less confused when they are using the present passage to go to riverside, and it won't cost too much. The biggest disadvantage is that vehicular traffic and pedestrian traffic are still mix together, so there will still be some conflicts and unsafety.

## OPPORTUNITIES CREATED

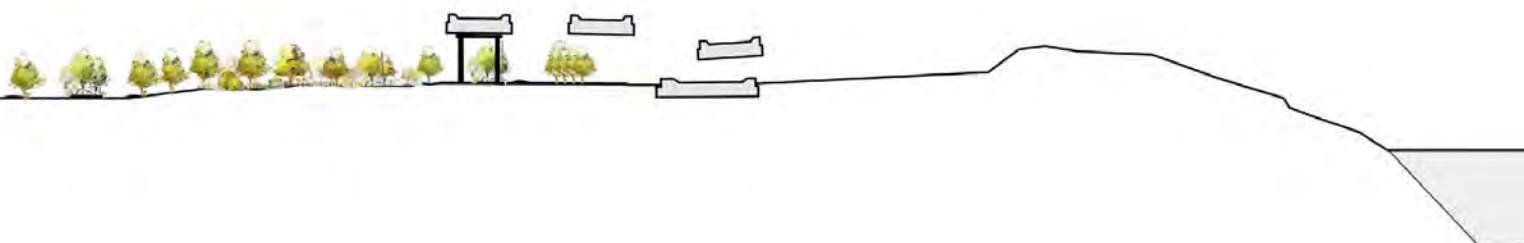
The area from the first speed hump to the intersection of East Ohio and Grant has a great chance to become a gateway courtyard. It has the wall of highway to shape the space, and it is the way which must be passed if we want to get to Allegheny. The threats are the unsafety and noise that come from the highway.



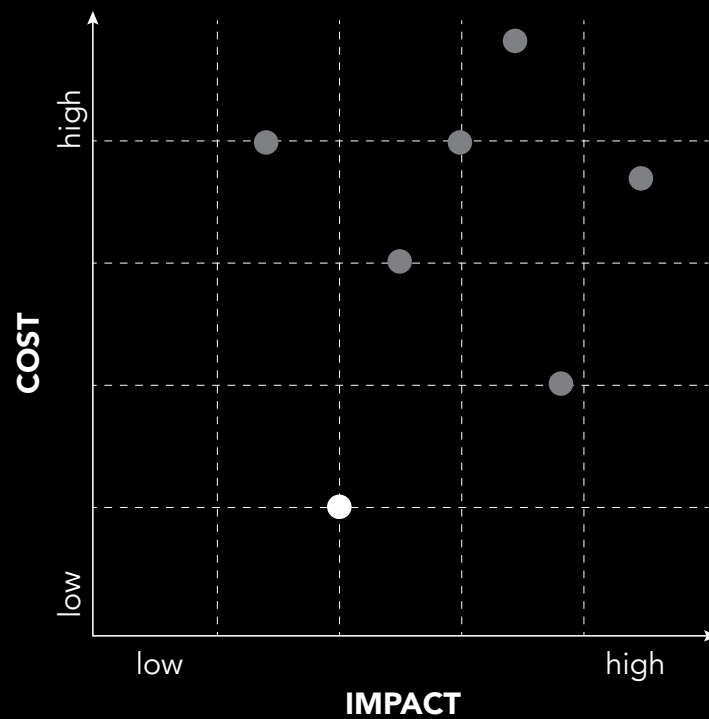




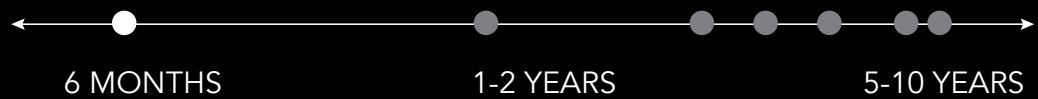




## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?







# RAMP TO THE RIVER

This option explores connecting to the river by travelling through the highway.

## DESCRIPTION

Using a piece of the existing highway, this scheme helps people get to the Riverfront park as well as the Three Rivers Heritage Trail. The scheme pedestrianizes the ramp that comes down onto Lincoln Avenue from the I-28. Adding another ramp that leads people down from the pedestrian highway, the path connects to the existing pathway or the right of way that connects Millvale to the Riverfront. Areas surrounding the ramp have been re-claimed to facilitate more public use.

## ANALYSIS

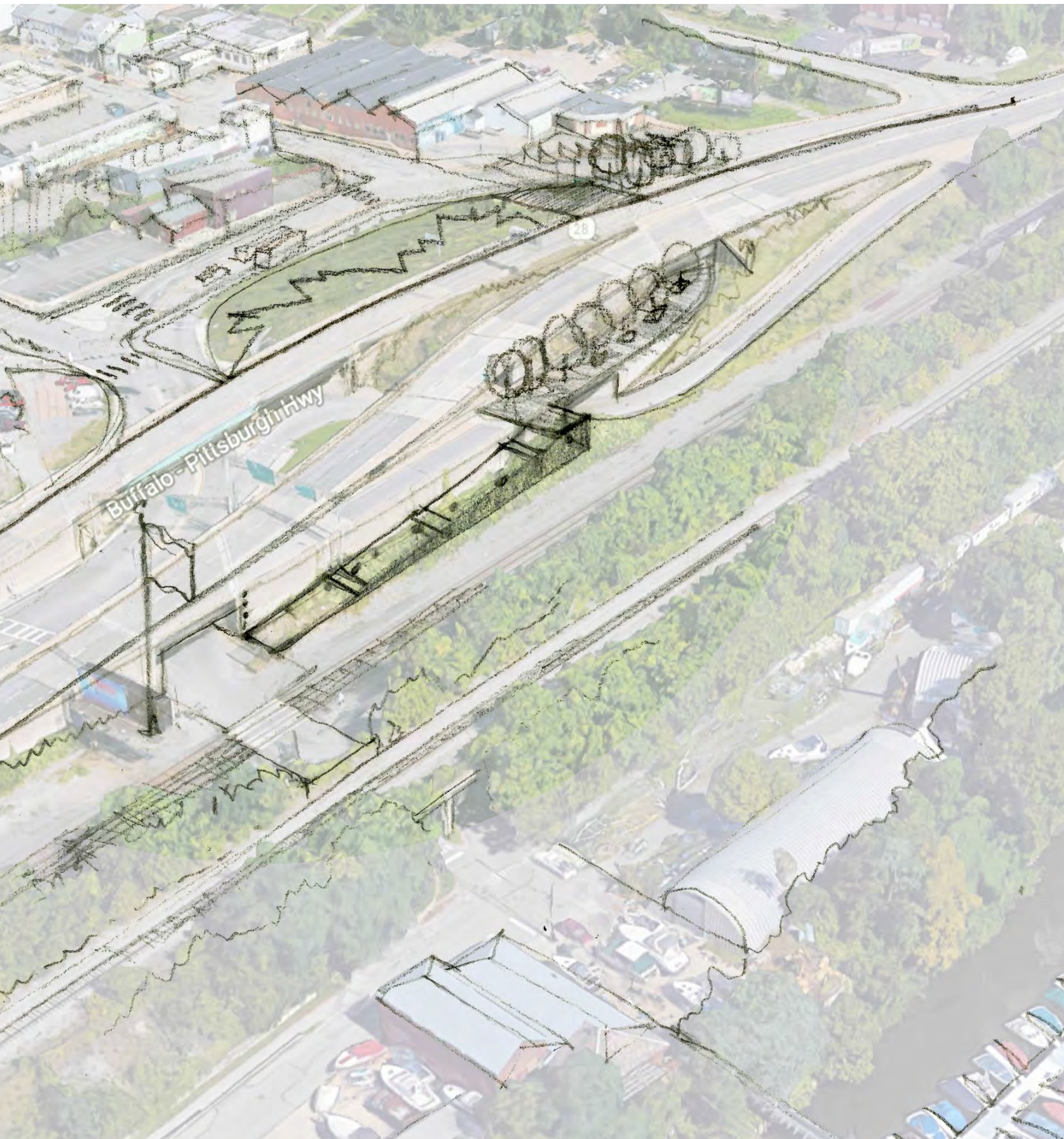
Reducing the number of crossings required to walk across to reach the Riverfront Park or the Three Rivers Heritage Trail, the scheme ensures safer pedestrian environment. Introducing pervious paving, infiltration areas as well as areas for rainwater / storm water retention, better water management is achieved. However, adding a traffic light at the intersection of E-Ohio St and 40th St Bridge and changing the Turn Right only lane to pass straight onto the I-28 is essential to realizing this proposal. The change in width of the road would encourage slower traffic while still allowing emergency vehicles such as a fire-engine.

## OPPORTUNITIES CREATED

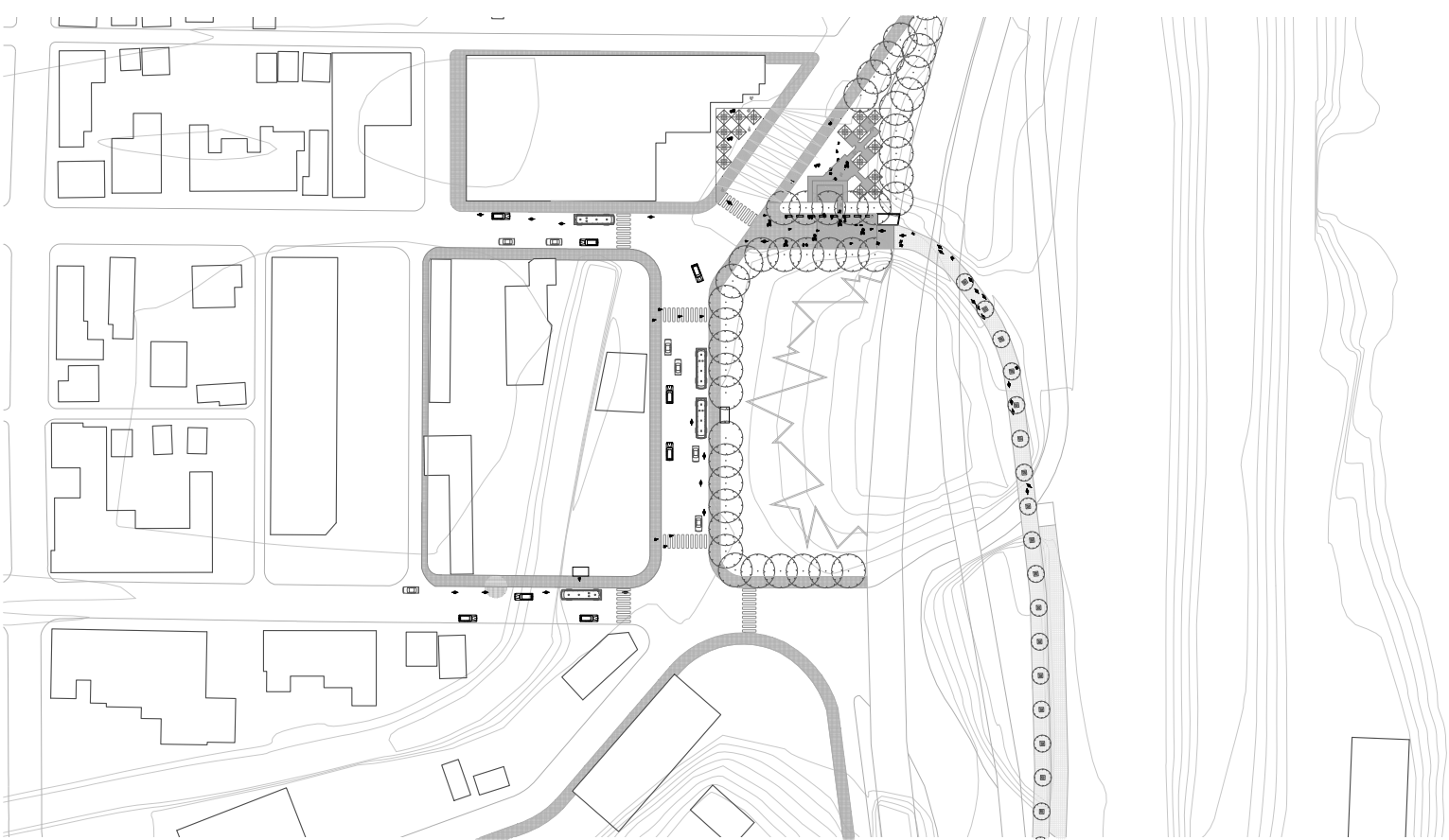
Re-claiming the land and the connection to the riverfront would now propose a unique way to view and access the riverfront. The scheme connects to the Eco-District protocol such as Water, Air, and Mobility. The newly created public space now offers the chance for restaurants or other culinary services to extend their services outdoors. The walls along the sides of the ramp and the berm can also be used to display artwork. This would help put Millvale as the start point for the bike trail as well.



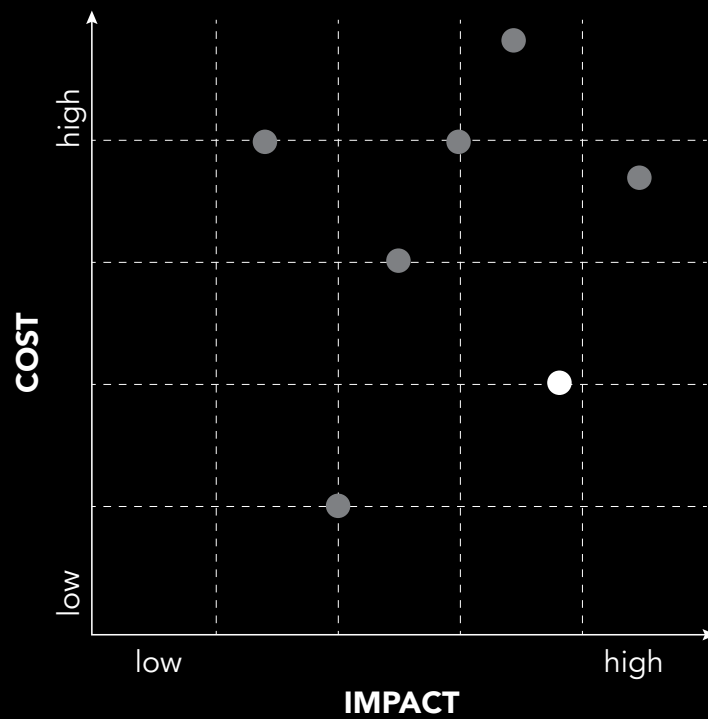








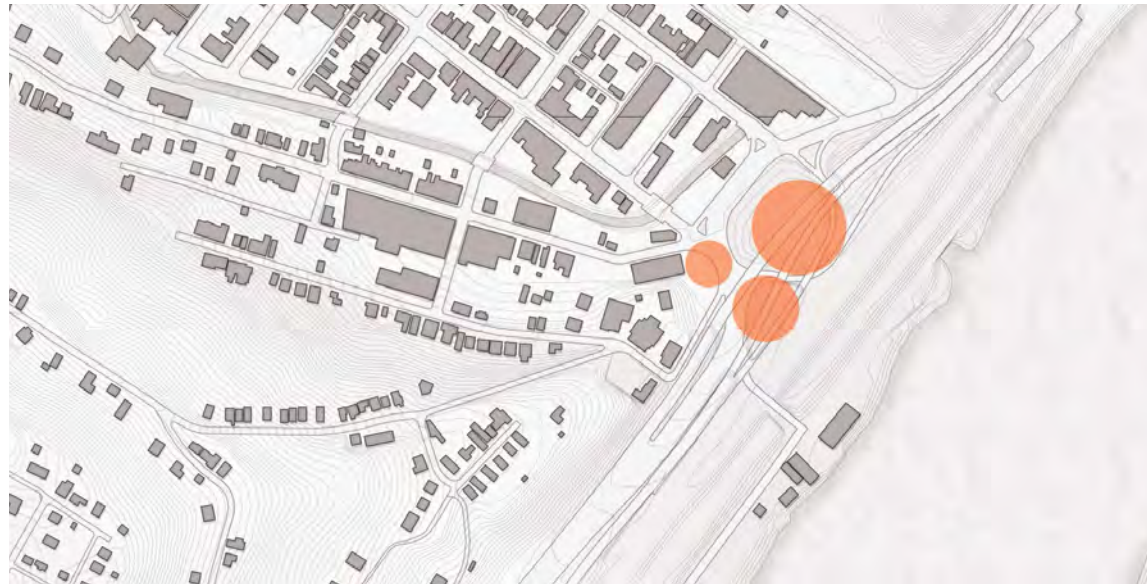
## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?







# PASS THROUGH

This option explores connecting to the river by travelling through the highway.

## DESCRIPTION

This scheme involves the removal of the land masses currently surrounding the highway. This process utilizes the existing structure that is currently supporting the highway system, and exposes it in order to open up that area. The exposure of the structure not only eliminates the visual barrier of the highway as an obstruction of the river, but allows both pedestrians and water to flow through the tangle of highways much more easily, creating a more sustainable landscape.

## ANALYSIS

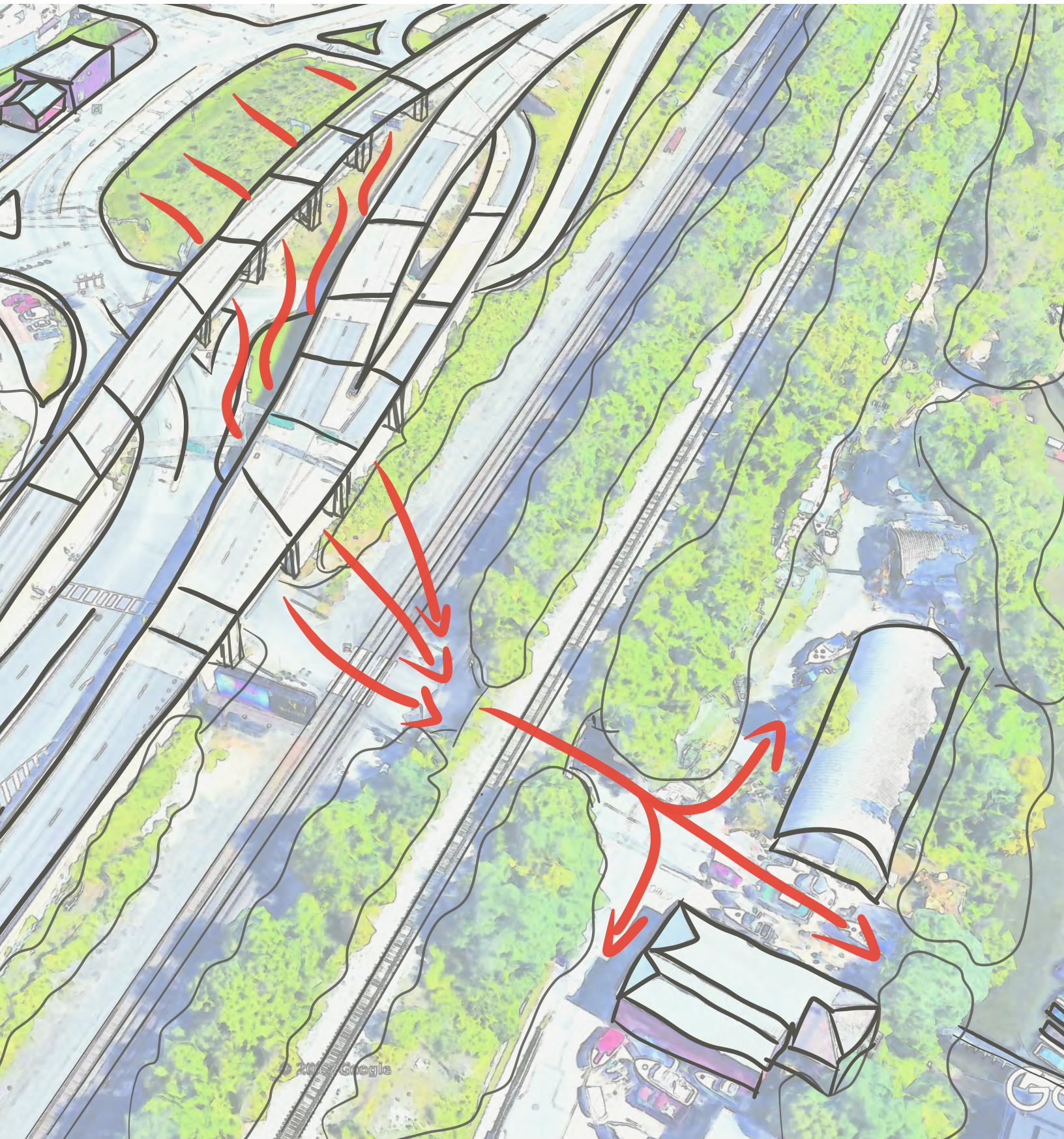
In addition to creating a safer path for pedestrians to travel to the river, the opening up of the underside of the highway has the benefit of allowing water to flow through as well. Flooding in Millvale is often caused by the overflow of Girty's Run, which is the primary path for water in that area to travel to the river. By creating another path that water can travel through, the impacts of potentially devastating floods would be greatly reduced.

## OPPORTUNITIES CREATED

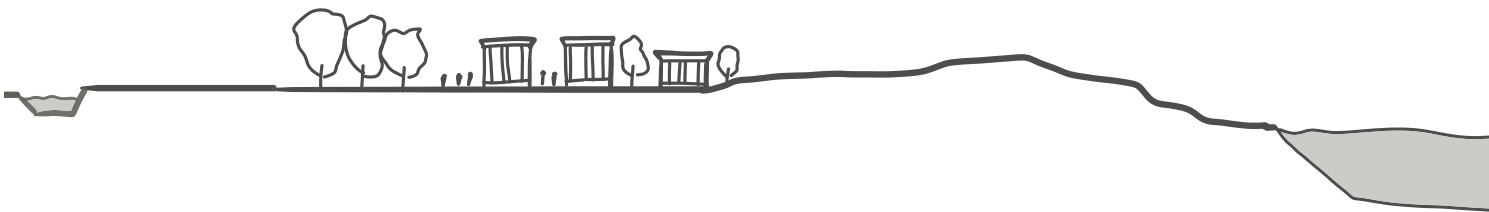
With the removal of all of this land, new areas become available for future development. The undersides of highways are becoming increasingly popular as "unused" places that have the potential to become something unique. Underpass art is becoming more popular as well, and the idea of having that area of the highway become a center for amazing murals and artwork brings new life into those spaces. The berm also has the potential to become a park, that would extend to under the highway. This could help link together a series of parks, all leading towards the riverfront.





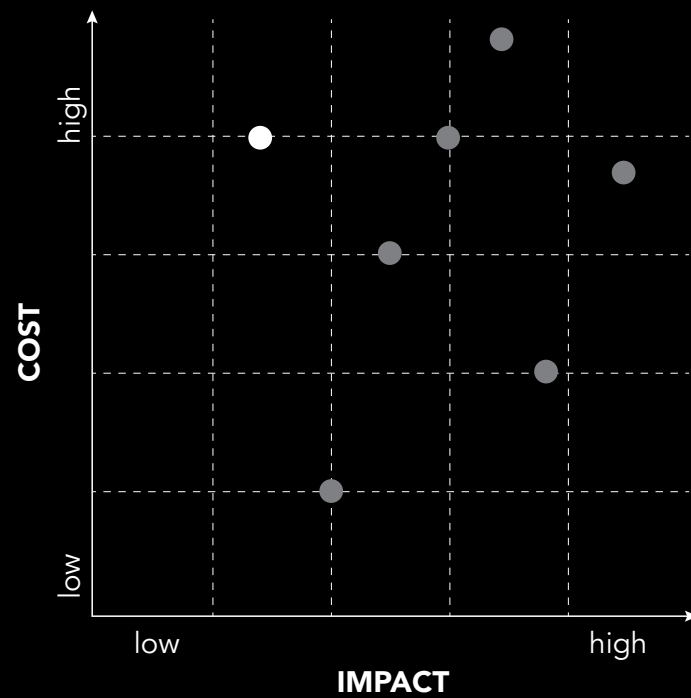




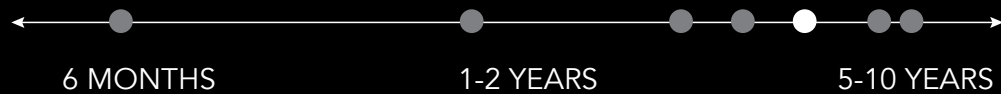


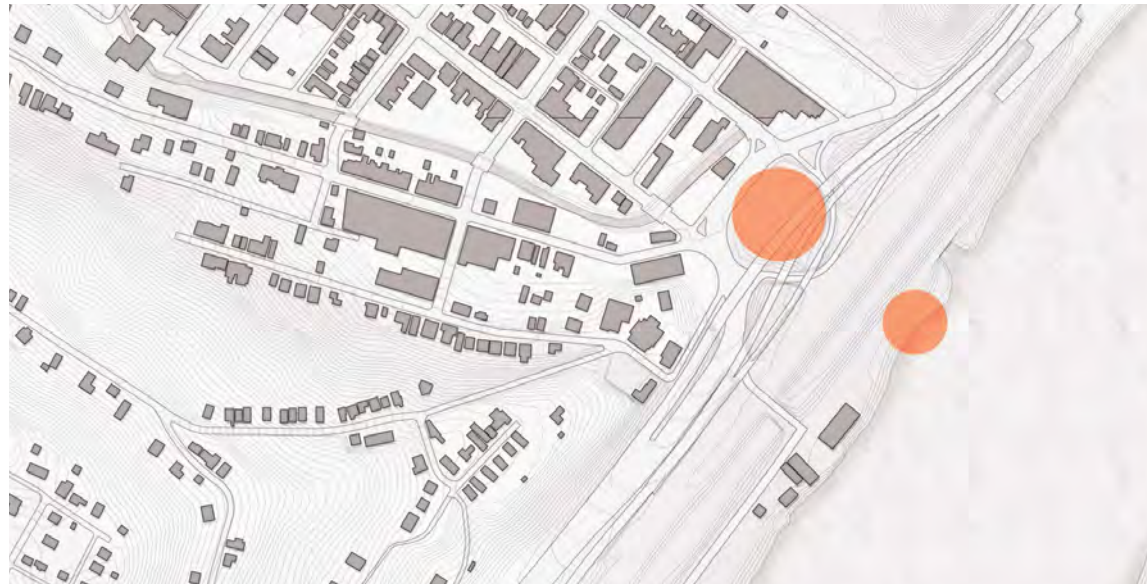


## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?





# BRIDGE FROM THE BERM

This option explores connecting to the river by travelling over the highway.

## DESCRIPTION

This scheme connects the people of Millvale not only to the riverfront but also to Lawrenceville. The idea is to use the berm and have that developed. It could be a collective mix of restaurants, coffee shops and a rooftop plaza that leads one to the bridge, which then connects to the cable car tower. The cable car then takes one to Lawrenceville, at the Bernard Dog Run. In terms of phasing, it could start with the development at the berm and at the riverfront. It could then be bridged and eventually have the cable car development .

## ANALYSIS

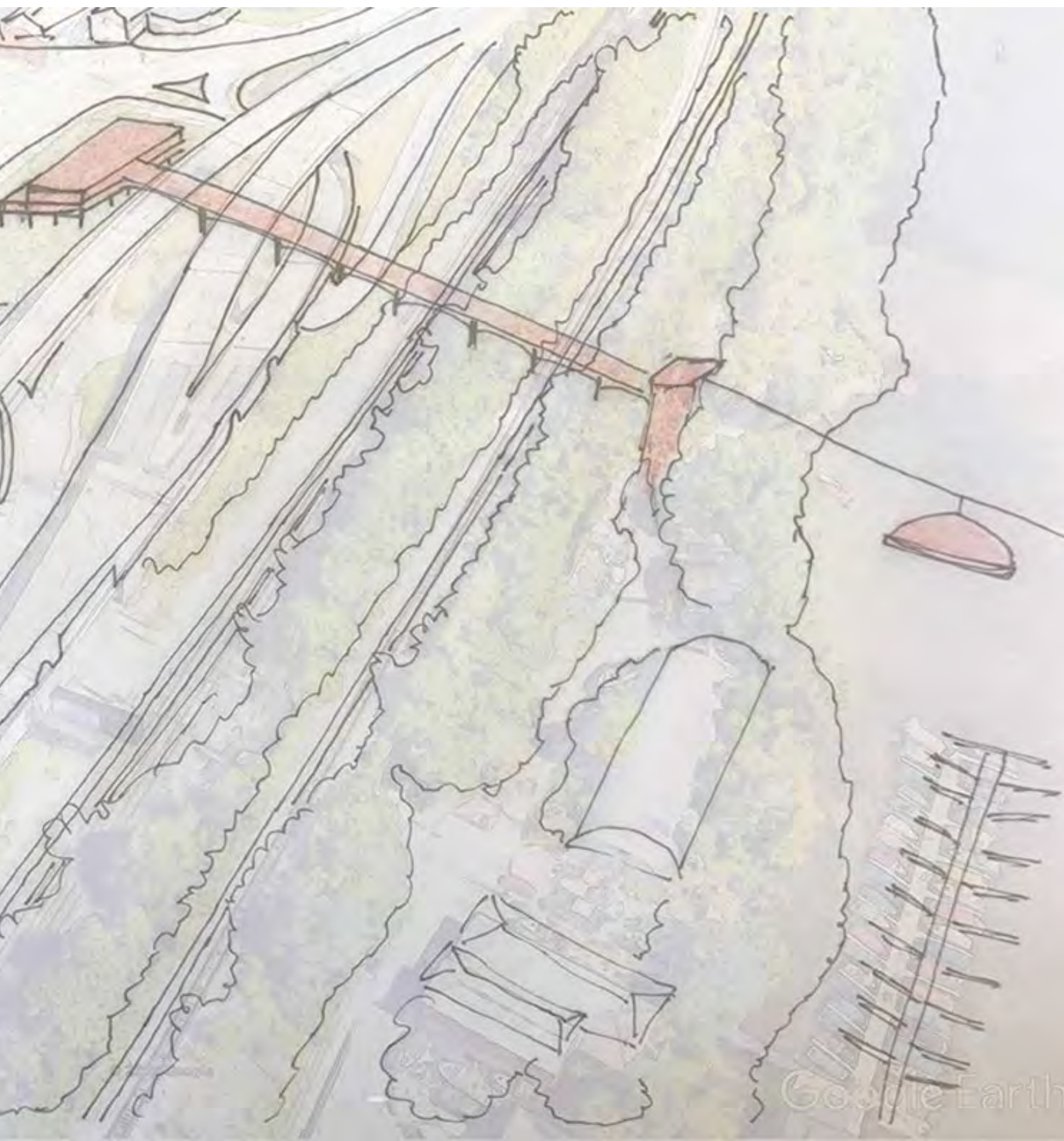
This scheme would help attract more attention to the town, the cable car addition would be a new experience and attraction for people in and around the region, but it would also be costly and would require input and permission from both PennDOT and the railroad company. This is a long term idea to execute and should be done in phases. Eventually Millvale could benefit by offering a range of recreation activities (restaurants at the berm, parks, riverfront activities, cable car) and a unique connection to Pittsburgh.

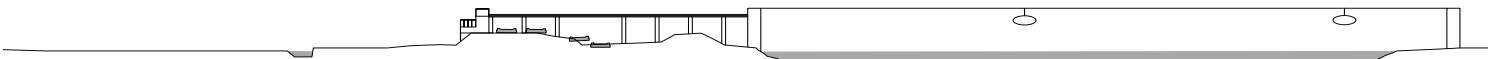
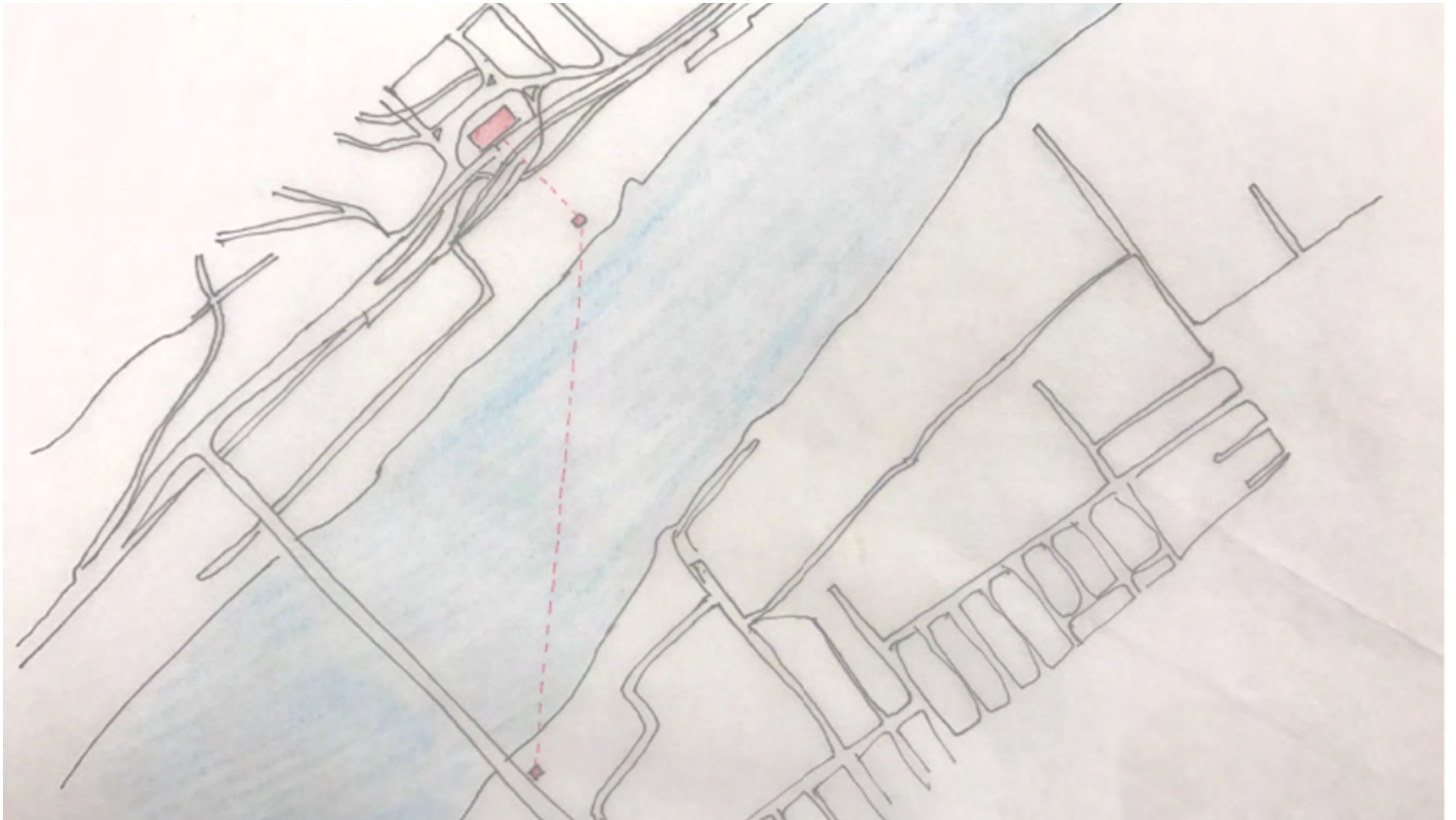
## OPPORTUNITIES CREATED

The bridge begins at the location of the berm currently giving shape to The Curve, the berm could be a great location for some small-scale retailers, like a coffee shop or a rooftop bar. The endpoint at the Riverfront Park would also be a great candidate for future redevelopment, especially for more “destination” activities like trail-related retail, picnic spots, river decks, kayak/canoe activities. The connection to Lawrenceville would help bring more people to Millvale and all that it has to offer.



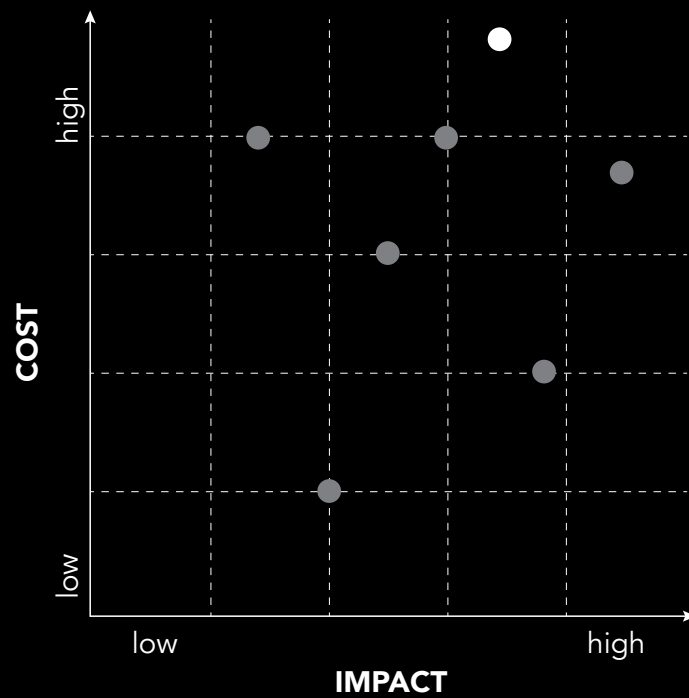




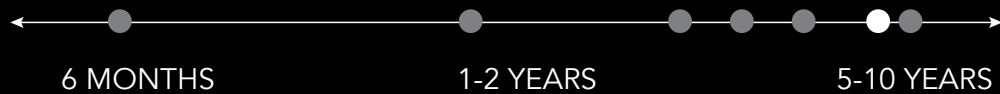




**FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?**



**SHORT- OR LONG-TERM SOLUTION?**





# RIVERFRONT LOOKOUT

This option explores connecting to the river by travelling over the highway.

## DESCRIPTION

From our site, Millvalians and visitors in this scheme would cross The Curve and walk up towards the existing landmark of St. Nicholas's Catholic Church. With the demolishing of the currently under-used former convent building, the church is more visible from the highway and becomes a true icon of Millvale. From here, pedestrians cross a bridge over Maryland Avenue and turn to face the Millvale Crossing bridge, which passes over Route 28 and the railroads, culminating in a lookout tower. After viewing the 360-degree panorama of the Allegheny River, Millvale, the Washington St Bridge, and Lawrenceville, visitors could descend via elevator to a riverfront restaurant that connects back to the Three Rivers Heritage Trail.

## ANALYSIS

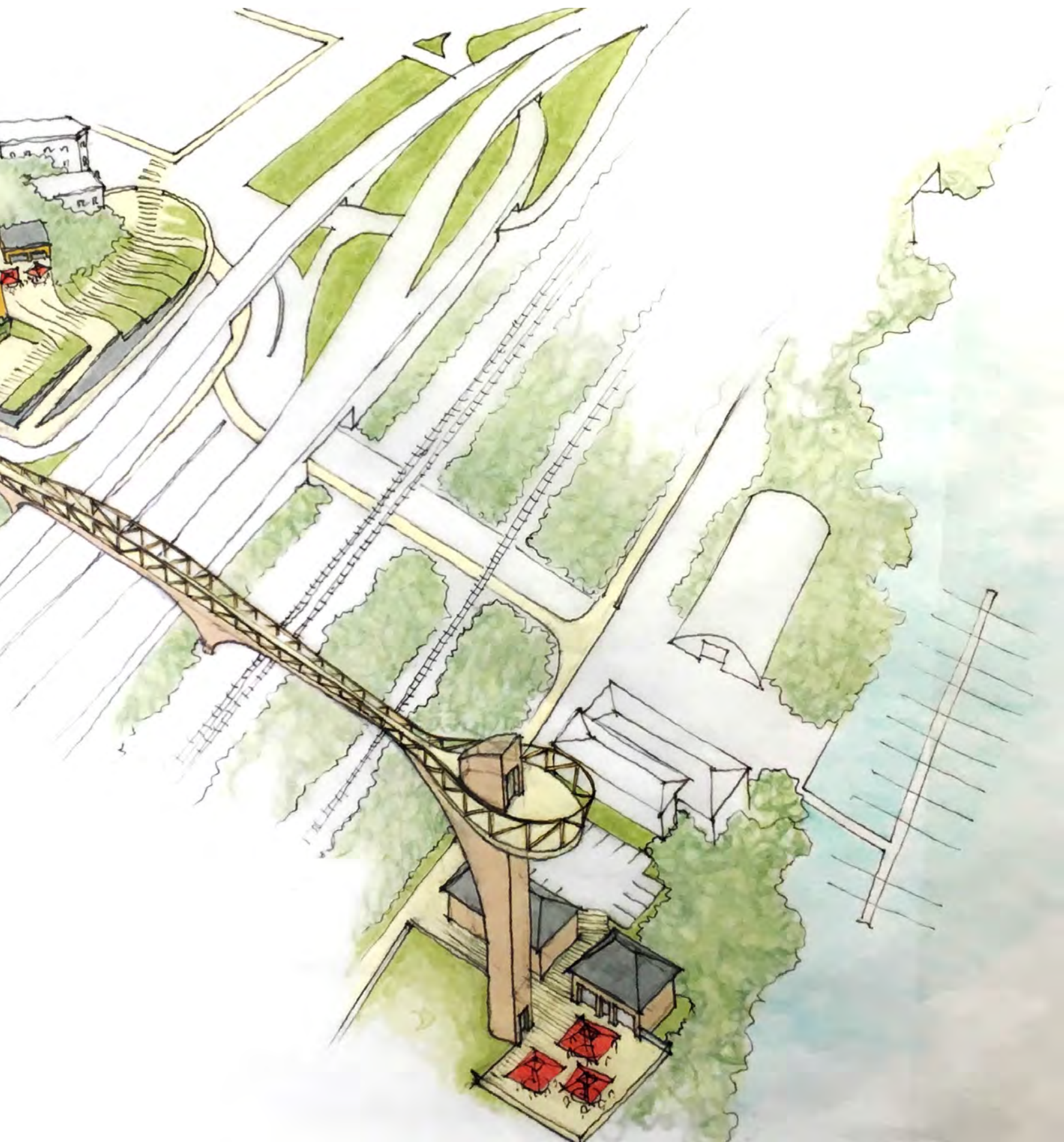
This scheme, although potentially expensive in order to design the bridge, avoids any conflict with zoning on the railroad company's and PennDOT's properties. Borrowing the pull and prestige of the already well-known landmark of St. Nicholas helps bring interest to the bridge; plus, the opportunity to include some sort of signage would bring a lot of visibility to Millvale from the commuters on the highway below. Despite these benefits, this proposal is really only half-finished; though it solves the problem of pedestrians crossing from Millvale to the riverfront, it does not solve the problems of flooding from Girty's Run.

## OPPORTUNITIES CREATED

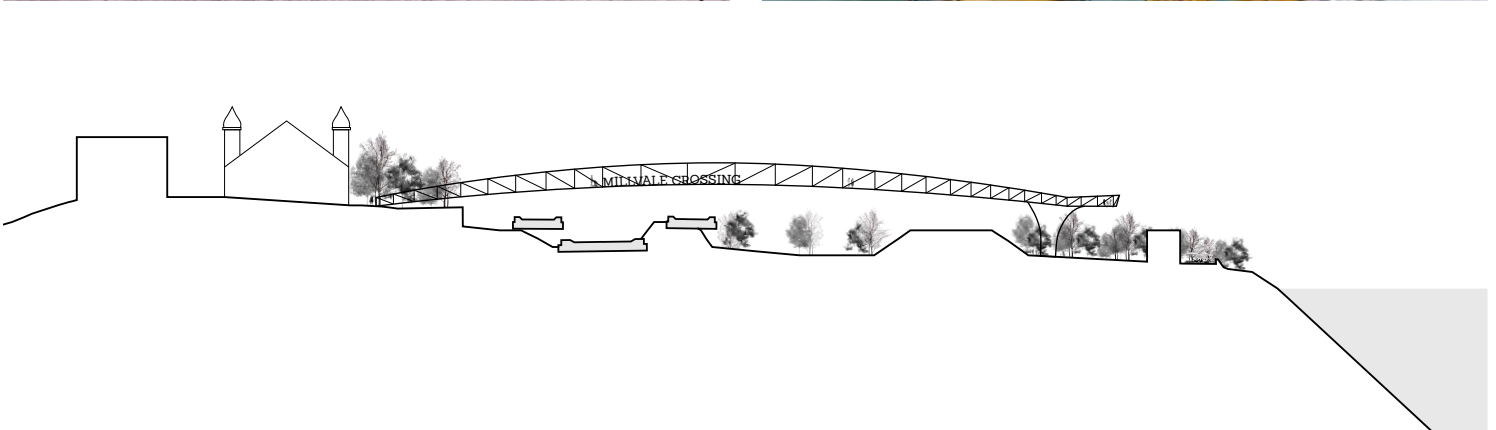
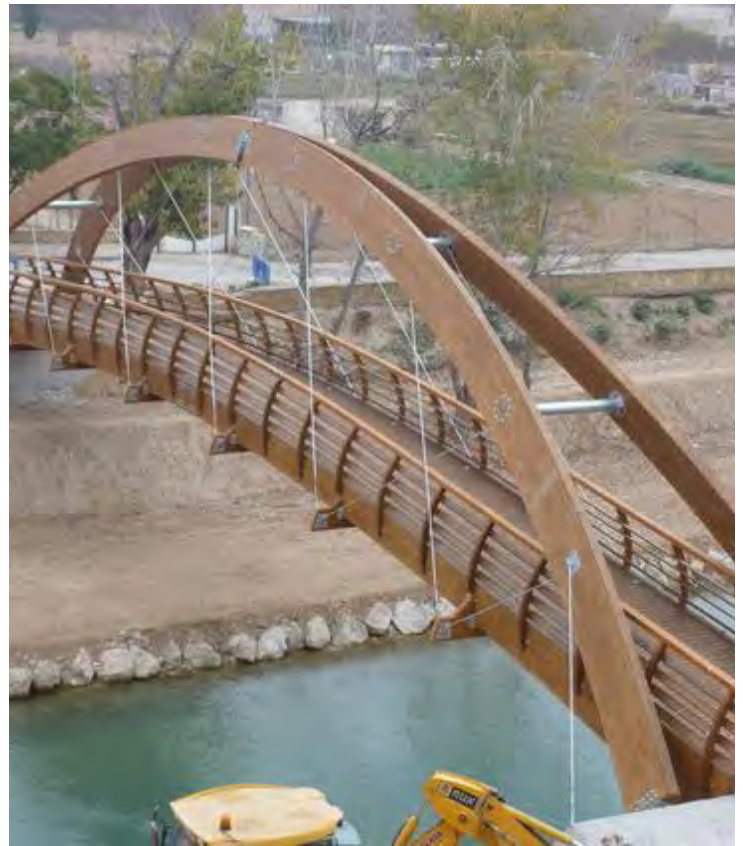
Because the bridge begins at the church, this area (with existing, under-used buildings) would be a great location for future redevelopment. Obviously, the endpoint at the Riverfront Park would also be a great candidate for future redevelopment, especially for more "destination" activities like a restaurant, bar, gym, or trail-related retail.





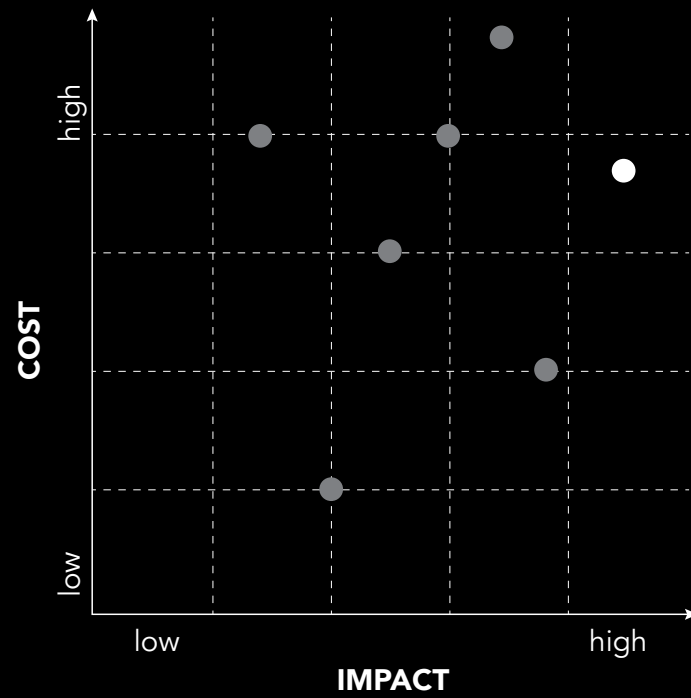








## FOCUSES ON THE MOVEMENT OF WATER OR PEOPLE?



## SHORT- OR LONG-TERM SOLUTION?

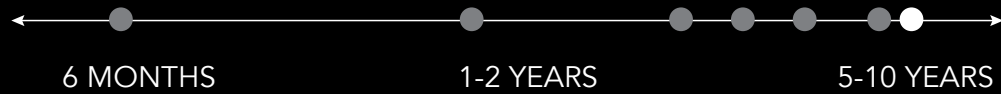




Image Source: Jian-Xiao Ge (2017)





# STAKEHOLDER ENGAGEMENT

As mentioned in the project description, stakeholders were engaged using a variety of methods in order to gain accurate and comprehensive views of strengths, weaknesses, opportunities, and threats to these connection strategies.

For the long-term strategies, the graduate studio employed engagement techniques such as presentations of work to residents, “Dot Exercise” mapping-centric surveys at Millvale Days, meetings with the Millvale Community Development Corporation, and more. For the short-term strategies, monthly meetings with the steering committee, email/telephone interviews with local stakeholders, and one-on-one conversations with invited residents were conducted to inform the development of this project.

There are a few major stakeholders that, though not contacted as part of this project, should be involved in any future project that relates to Millvale-to-riverfront connections, including the owner of the private marina at the end of the right-of-way and representatives of the railroad company.

**“IT DOES NOT  
LOOK LIKE AN  
ENTRANCE TO  
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PARTICULARLY A  
BEAUTIFUL PARK.”**

**“MILLVALE  
IS A GREAT  
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TOWN.”**

**“I WANT A SAFER  
INTERSECTION,  
BECAUSE I BIKE  
IT A LOT.”**

**“[MILLVALE IS]  
A DELIGHTFUL,  
ACCOMMODATING  
TOWN NEARBY  
THE TRAIL.”**

**“TRAIL USERS  
WOULD BENEFIT  
FROM ACCESS  
TO OUR GREAT  
LITTLE TOWN”**

**“BIKES!  
FLOWERS!  
TREES! LIGHTS!  
WELCOME TO THE  
MILLVALE TRAIL  
WONDERLAND.”**



# STAKEHOLDER ENGAGEMENT

The engagement of stakeholders at every level of any design project is imperative in the facilitation of the community's vision. It is the belief of the Remaking Cities Institute that listening is the most valuable tool of the urban designer; in this vein, the project team met with the steering committee, major stakeholders, and local community members throughout the design process.

Throughout the preceding design process of the "Urban Placemaking" graduate urban design studio at Carnegie Mellon University in 2017, public meetings were held approximately every month, culminating in a final meeting with the Millvale Community Development Corporation.

In this portion of the research project, multiple engagement opportunities were implemented, but was particularly guided by monthly meetings with the steering committee, which included:

- Amy Rockwell, Millvale Borough Manager
- Jim Machajewski, Millvale Borough Council President
- Brian Spoals, Millvale Mayor
- Zaheen Hussain, Millvale Sustainability Coordinator
- Brian Wolovich, Millvale Borough Councilman
- Eddie Figas, Millvale Borough Director of Administrative Services
- Katt Schuler, Chair, Millvale Bike and Pedestrian Committee
- Todd Kravits, PennDOT District 11 Traffic Engineer
- Courtney Mahronich, Friends of the Riverfront
- Cathy McCollom, Allegheny River Towns
- Darla Cravotta, Allegheny County.

There were a number of resources consulted during the research, including Todd Kravits, PennDOT District 11 Traffic Engineer, and Mark Magalotti, Co-Director of the Center for Sustainable Transportation Infrastructure. In addition to these more formal stakeholder engagements, we also conducted a series of interviews with community members via e-mail and telephone in order to gauge the urgency of this project and to determine solutions. The adjacent and following pages record the interview responses.

# INTERVIEW SUMMARY

## **What do you see as the most hazardous or difficult obstacle in getting from Grant and East Ohio (“The Curve”) to the riverfront?**

*We observed that several of the stakeholders mentioned the configuration of the highway and resultant speeding traffic as one of the primary causes of concern, followed by the lack of safety for pedestrians and bicyclists. Another concern brought forth by a majority of stakeholders was the lack of signage to indicate the crossing and the direction towards the Millvale Riverfront Park.*

“Probably just the configuration of the highway and oncoming traffic. Really it is the roadways, we can work with pedestrian paths, not roadways.”

“Traffic from the road and the train track crossing.”

“Plain and simple, the traffic and lack of protection for pedestrians and bicyclists.”

“No traffic control, cars fly down from the 40th Street Bridge and often use the turn lane for the riverfront to go straight to the ramp for 28N when traffic is backed up at the light into Millvale.”

“It is confusing -- multiple streets coming together. Dangerous -- 28 traffic exiting. The turn is not well marked, dark, you have to cross railroad tracks, it is ugly and discouraging. It does NOT look like an entrance to anything, particularly to a beautiful riverfront park.”

“The highway intersections. Ramps onto Route 28 in either direction. There is no stop light, no traffic control. For pedestrians, people on bikes and cars. It’s a difficult area to navigate. There is also no noticeable signage from Millvale to the park and no signage from the park to Millvale. So, following the sidewalk from the park to Millvale, across the intersections and the opposite direction -- with well placed and well lighted signage may be helpful. Additionally, working with PennDOT to put an on-demand signalized flashing crossing light could assist in the short-term.”

“While biking, the most hazardous obstacle is the drivers. You have to trust that they’re not going to plow you over when getting into the left lane to turn towards the riverfront. We need to control drivers’ behaviors and expectations for what is acceptable.”

“The traffic. Would love a pedestrian bridge.”

“No clear sidewalk. The intersection is very confusing to drivers and it makes it hard for walkers and bikers. Also, once you get over the highway, there is still quite a distance between the tracks and the actual “riverfront” park. That area is full of piles of salt and such. Does not look nice and is potentially hazardous.”

## **Do you see benefits to encouraging riverfront users to visit Millvale? What deters riverfront/trail users from going into Millvale?**

*Stakeholders stated that an influx of visitors would provide an economic effect to businesses within the town and bring positive effects of outdoor recreational assets to the community. Millvale connects and markets activities such as dragon boating and kayaking already. Unfortunately, the primary deterrents that prevent trail users from entering Millvale are the absence of signage indicating the presence of the town nearby the trail.*

“Provide economic effect to businesses within the town. We want people to come into town, whether for coffee or ice cream or records. Economic stimulus and safe passage into millvale. Difficulty to get across the several (3) ways to cross. Also, major lack of signage , and idk if lots of foreign trail users are familiar with millvale being so close and have access.”

“There is a social and economic value for both those traveling into Millvale and the business and residents that already live here. What deters riverfront/trail users from going into Millvale? Motor vehicle traffic, Train traffic, The uninviting look to the tunnels and train tracks.”

“The deterrent is the same as above: the traffic volume, patterns, and controls. Both Millvale and those who visit it would benefit from more traffic between the town and the riverfront; Millvale would get an increase in business and patronage, and the newcomers would find a delightful, accommodating town nearby the trail.”



I think lack of signage at the riverfront entrance and within the park itself to let outsiders know what is available to them.”

“Well sure. I’m not sure much deters people from going into Millvale. If it’s specific to the intersection, then crossing a road without any type of traffic control is dangerous. Anywhere. However, I will say that riverfront park always has a lot of users.”

“Outdoor recreationists are increasing across all aspects – paddling, biking, hiking, wildlife viewing, motorized boating, fishing.... The river is a recreational asset and attracts visitors, benefits residents and encourages investment. Study after study can demonstrate the economic benefit of outdoor recreational assets on a community that connects and markets them. The location of Millvale to downtown allows the river also to serve as a commuter opportunity and the bike trail along the riverfront already is used in that manner. This is a significant and underutilized asset that can attract businesses (i.e. outfitters/ marinas/restaurants/etc can be used as a community benefit – gathering place, event spaces. Three Rivers Rowing already attracts traffic – if it were easily and safely connected to the community, all the riverfront, river and trail users could access services and businesses in town. Again, economic studies bear out the fact that recreational users spend money and spend a lot of it. It is a growing and significant market. Property values go up, people and businesses locate where there is recreation. Check out Outdoor Industry Foundation – Outdoor studies and the economic impacts are published annually. It makes the argument that economic benefits can be significant.”

“A lack of signage and a sidewalk or path going under and over the railway isn’t exactly inviting for riverfront users. Many riders of the riverfront drive to the park, so riders really need a invitation to ride their bike out of the safety of the trail.”

“Yes, More visitors equals more business. I believe the people that use riverfront don’t want to cross the busy intersection to get to Grant Ave because of safety.”

“Yes! I have been trying to make, especially bikers, aware that Millvale has a thriving business district. I’ve done a pop up at the riverfront and handed out samples. What I think deters people is the distance from the gazebo to Millvale (the Gazebo is most times marked as the “end of the trail”). Also, the intersection in which they emerge from the trail drops them directly into dangerous traffic. No one will take their kids that way.”

## **Are there some features or amenities that you think Millvale could benefit from at its riverfront?**

*Stakeholders stated that some of the amenities that could benefit Millvale would be places to eat, drink, or rest along the trail. While the Millvale Food Truck Park and the Millvale Riverfront Park are primary sources of entertainment and leisure here, stakeholders mentioned that a bike repair shop, public restrooms, play spaces for children, and more inviting activities would liven up the riverfront and interest in Millvale and nearby townships, promoting further growth and investment in Millvale.*

“Working on a natural playspace for children - just received a grant - out of all natural items. Also looking at issues surrounding parking for trail users and marinas, soon will have a food truck park. With any type of growth you’re looking at these basic infrastructure questions.”

“Definitely, socially and psychologically. The use of the river, the green space, soon the food truck park, some use the docks for fishing and boating, and the rowing club is use by some for sport and exercise.”

“A year or so ago there was a comprehensive plan drawn up to improve the Riverfront Park. I don’t recall all of the specifics- concert and festival venues along with food vendors were prominent among them- but I hope that plan is available to you, because I thought it was excellent.”

“Signage. Public Restrooms. Bike Repair Shop. Spot for local establishments to sell their food/wares on a rotating basis developed by the Business Association of Millvale.”

“Beautiful gateway is needed; safe entry point, needs food on site or at least close-by. Has an outfitter – expand and offer kayaks and canoes. Can you rent a motorized boat? Sailboat? Can folks learn about dragon boats? Can you go a ride? Right now it is not as interactive as it can be. The launch is ugly and hard to find – does not feel public or inviting. No signage that explains where to go, what to do, what services – i.e. food, drink, lodging is available in Millvale. How far of a bike ride is it to downtown Pittsburgh? How many nautical miles and if you take a boat to downtown Pittsburgh can you find a place to dock? This could be a vibrant and active riverfront and there are plenty of examples of how others have enlivened their riverfronts. Check out Project for Public Spaces for some ideas.”

“A water fountain. Does that already exist? Maybe a water pump! And a tool station. Or a sign about the amazing toolstation in Millvale.”

“The current park has a huge boating population (motor and non motorized) along with a “park and bike” population. Bathrooms. Bathrooms and a water fountain. Better signage. Once the food truck park is established and the playground is there, water, signage and bathrooms are critical.”

“As a business owner, I believe signage that could be installed, like an info board that could be updated to visitors to see what businesses and events are happening in Millvale would be really beneficial.”

“Increased signage. More information about the town, historical and current.”

**Are there any precautions we should keep in mind when suggesting strategies for crossing the PA-28?**

*Regarding precautions to keep in mind when proposing these strategies, stakeholders answered that the Millvale Marina and the railroad crossing have been the toughest obstacles to with whom to collaborate. They also stated that the placement of sharrows by PennDOT at the bottom of the ramp to the 40th St. Bridge is misleading. Despite the recent repaving of the nearby intersection by PennDOT, the replacement of the sharrows was constantly brought to light, but with no response from PennDOT.*

“Main ones are so many different entities involved - county state municipality + railroad crossings. Private property on the marina after crossing all the obstacles.”

“Yes run faster than the cars. Seriously they should use the existing cross words and control crossing buttons. Stay off walking down the road.”

“The railroad isn’t going anywhere. And the RR crossing is not gate/signalized which creates a safety concern.”

“People are insane and don’t care about anyone but themselves, especially while driving. That being said, if we plant a ton of flowers, make a giant sign(s) that talks about the trail so people are immediately engaged in the new trail environment. Heavy on the visuals. Bikes! Flowers! Trees! Lights! Welcome to the Millvale trail wonderland. A bridge to the past!

“I think you need to keep in mind that kids and families bike that trail. It is important that we make the connection safe enough for families and kids who want to go to the riverfront, but also keep in mind that it is a busy interchange for cars and an important one too.”

“There are 2 things I will point out: I don’t know if it’s exactly a precaution, but note that there is virtually no signage anywhere to indicate the existence of the Riverfront Park and its connection to the Three Rivers Heritage Trail. The “locals” know it, but anyone unfamiliar with the area has no guidance traveling between Lawrenceville, the Northside, the northern suburbs of Millvale, Ross, and Shaler, and when the trail is completed up the Allegheny River, all of the communities northeast along the river. I have probably put more thought into this than anyone, and so constructed the map that I attached for what we refer to as “The 40|28 Trail Junction” (40 referring to the 40 th St. Bridge, 28 referring to Rte. 28). The second point concerns working with PennDOT. There are two sharrows at the bottom of the ramp to the 40 th St. Bridge, one pointing up and one down, that are incorrectly placed- they should both be near the center of the ramp divider, not to the right as they both are. When PennDOT repaved the Grant St./E. Ohio St. intersection a couple of years ago, we in the MBBPC pressed hard to get the sharrows moved to the center- to no avail. My point is, you’re going to work with PennDOT on this, and good luck with that.”

“Drivers going too fast, not good signage. PennDOT difficult to deal with; railroad crossings and railroad bridges—railroad difficult to deal with – difficult to paint, change, sign railroad overpasses. Need to get strong consensus and political coverage to get PennDOT and Railroads to sit down and say something other than NO! I would suggest emphasizing the safety issue – how many accidents have been there – those stats might be surprising – if not available, it is obviously an accident waiting to happen. Could you film the intersection at different times, different days and show how traffic moves into the park?”



## How do you, as a stakeholder, see an improved connection benefiting Millvale?

*The stakeholders also mentioned that an improved connection to and from Millvale could help benefit the borough in many ways, primarily through the creation of a beautiful, productive borough, through the connection to other trails, and influx of potential customers – all resulting in a positive economic impact to Millvale. During the warmer months, a lot of bicyclists and visitors come into and through Millvale.*

“Economic impact to Millvale. We see it already with how the crossing is now, especially in spring and summer, lot of riders come into the community. More of an increased awareness and strategy to cross.”

“An improved connection would help to be more appealing for residents to walk or bike to the area and also it would bring people into Millvale to spend money and add socially to what exists now.”

“I want a safer intersection, because I bike it a lot. In addition, my wife and I are very devoted to Millvale- we love the people there, and cherish its can-do, underdog status. An improved connection would benefit the town greatly.”

“The connection would allow folks using the trail to learn what Millvale has to offer while at the same time developing more business for the current establishments. It would promote further growth within the town. A safe connection would not scare folks away as it does now merging with live traffic.”

“Safe, beautiful, lighting, plants, inviting – a gateway moment that says this riverfront park is GREAT!”

“We need accessible green spaces and it’s our connection to the city. It will make the lives of every Millvillian happier and therefore more productive and leading to a more beautiful, productive borough.”

“Increased traffic of potential customers for our business district”

“There are so many people who use the trail who never step foot into our town. We have a lot to offer and more to come. We would love if the people using this portion of the trail made a day or afternoon of it in Millvale.”

## How do you, as a stakeholder, see an improved connection benefiting visitors of the Allegheny Riverfront and trail?

*Stakeholders claimed that an improved connection would also benefit visitors of the trail by providing them with multiple locations to eat, drink and take a break along the trail in Millvale. There are many attractive local businesses that would greatly appreciate customers, who would enjoy local goods and produce as well.*

“Fairly significant renaissance occurring now, property sales and values have increased after being stagnant for >10 years. An increase not only in home sales, but in business sales and influx of people coming in are younger adults. 25-35 year olds are buying like never before. The same people are walking more, biking more, we are seeing more pedestrian and biking. Even a great change in the last 3 years. Correlation between younger adults and the way they travel.”

“It would provide places to eat, drink, or take a break from there travels along the trail. Also could also add to some additional entertainment to those that are looking for it.”

“Trail users would benefit from access to a great little town and all of its amenities.”

“Users of the trail would be able to enjoy a nice meal before turning around and heading back to their cars. It would provide comfort knowing especially those riding with children that there was a place at this end of the trail for comfort and relaxation.”

“Economic benefit of parks/trails/rivers is well known. Property values go up; businesses relocate near these amenities, residential attraction to towns/neighborhoods with trails and rivers is well known. REALLY: google the economic benefits of trails/outdoor recreation and you will find hundreds of examples with hard numbers of value from direct research. This is a proven benefit, documented asset.”

“Because they are hungry and thirsty and want a Yetters Ice Cream Float! I think that speaks to all the issues addressed by improved accessibility.”

“Millvale is a great destination town. It is a place to stop and grab a bite, grab a drink, hear music, shop, etc. It is the kind of town I look for when traveling.”





# SHORT-TERM DESIGN STRATEGIES

The following design strategies are not comprehensive, but provide a basic set of potential design interventions that our research suggests can have positive impacts on Millvale's social, ecological, and economic conditions. Arranged as a set of relatively short-term design options, these strategies can and should be implemented in conjunction with each other or other potential designs as either separate projects or as parts of an overall vision for the connection to the river. When initiated and completed with overlapping implementation processes, these strategies can build momentum within and outside the community to instigate more and more investment (with time and money) in businesses and properties in Millvale. These strategies also extend connectivity of the Three Rivers Heritage Trail, making the trail a greater regional asset.

This section concludes with an evaluation matrix that may help with Millvale's selection, sequencing, or post-examination of one or more of these proposed design strategies. These criteria for evaluation all relate to the aforementioned primary objectives for the project: to improve safety and accessibility, to involve local stakeholders, and to initiate greater investment.

Also produced as part of this project were two "interactive renderings," which are essentially live Photoshop files that allow the customization of two views with some combination of the following design strategies. The adjacent image is a screenshot of one such interactive render from the off-ramp of PA-28 onto East Ohio Street, showing the design options of crosswalks, street trees, and murals simultaneously to provide a vision of multiple design options in conjunction with each other. In the following pages there is a bit more detail on each individual design option, accompanied by a screenshot of the interactive rendering with just that option turned on, and precedent images that may help with the visualization, design, and implementation of the strategies.









# 1. IMPROVED CROSSWALKS

In general, crosswalks are an indicator of areas designated for pedestrian use. But the crosswalks currently used particularly to cross E Ohio St to access the riverfront don't stand out enough to drivers. Investing in brighter, visually-interesting crosswalks may signal to drivers that this area is an important pedestrian path and caution is required. In previous consultations with PennDOT, speed tables were not recommended, but the idea of painted crosswalks was relatively well-received. As long as each crosswalk retained the parallel white stripes alongside a mural or parallel white stripes, it is considered a pedestrian crossing.

There are many precedents throughout the City of Pittsburgh and in other cities that prove the efficacy of this strategy. There are also a variety of methods this pedestrian crossing can be made more obvious and intriguing to both pedestrians and drivers, including material changes (from asphalt to brick or stamped concrete) or simply painting the existing asphalt to be a brighter color, a pattern, etc).

Another related strategy is to eliminate the slip-lanes on East Ohio Street between Grant Avenue and Lincoln Avenue and designate them into on-street parking spots. The parking spaces would be available during times when the volume of traffic is low enough to eliminate the third moving lane. For this reason, a traffic count is needed. This change would involve rebuilding the intersections, which would help change the character of East Ohio Street from an auto-oriented highway to a more pedestrian-oriented urban street. Right angles at Grant Avenue and Lincoln Avenue's junctions with East Ohio Street would also cause cars to slow down to take those turns, enhancing the quality of pedestrian crossings at the dangerous and difficult Curve. Paired with brighter, more visually-interesting and attention-grabbing pedestrian crossings, the pedestrian access from Millvale to the riverfront would be greatly improved, both visually and physically.

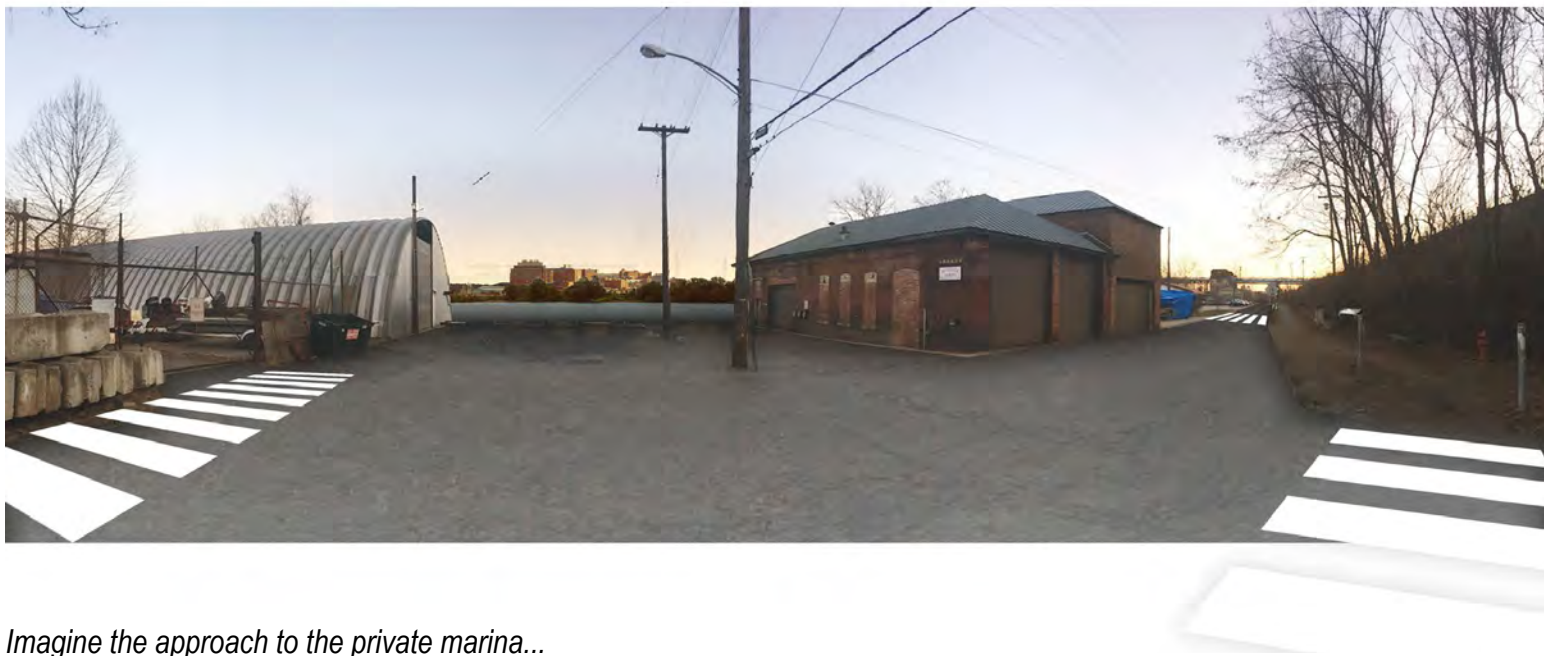
This option would require consultations with PennDOT traffic engineers, users of the pedestrian crossings in Millvale, and perhaps muralists or other artists who could design visually stimulating crosswalks.





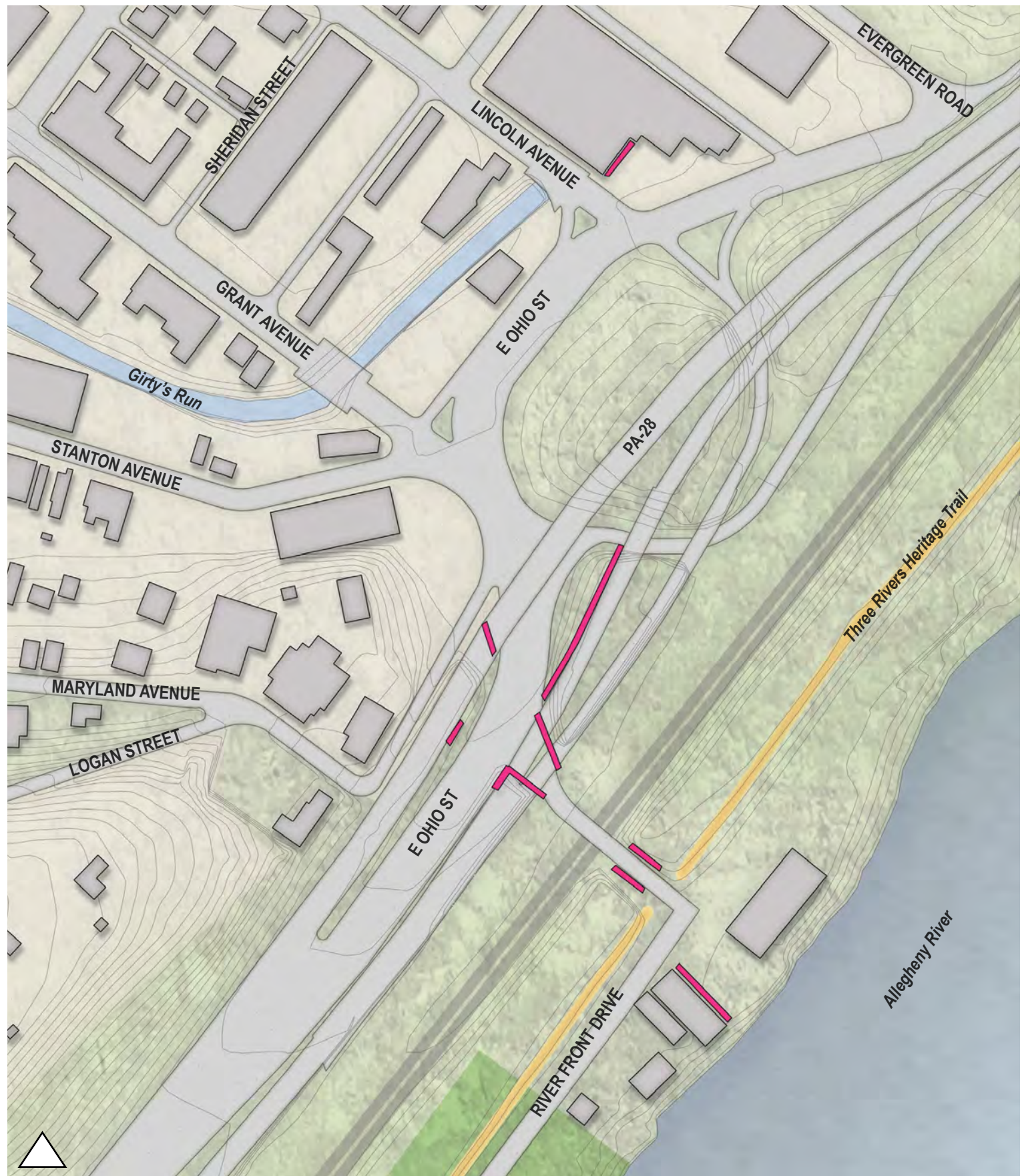


*Imagine the E Ohio Street pedestrian crossing...*



*Imagine the approach to the private marina...*







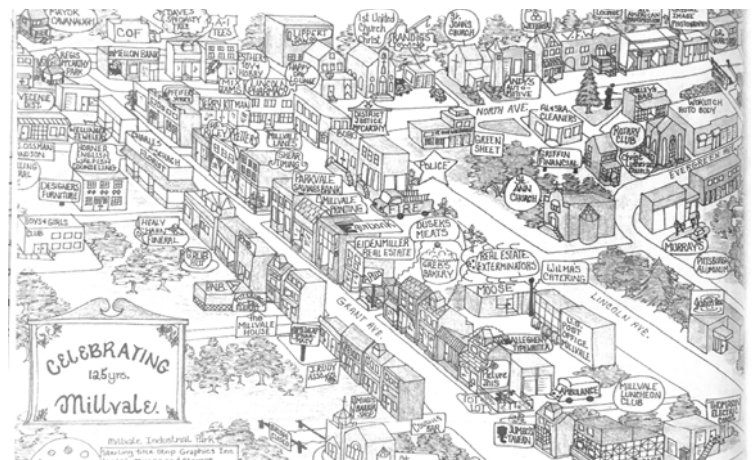
## 2. MURALS

Murals and signs displayed on prominent walls and walkways have a great visual impact on the area's identity as well as providing maps, routes, and other wayfinding devices to help pedestrians, cyclists, and drivers to navigate the confusing and dangerous passage to access the riverfront. Especially at points that are highly-visible to motorists and pedestrians from both far away and close up, a mural designed by either a professional artist or a group of local volunteers could spur interest in future projects, unite community members around a particular topic or scene, and even simply provide an opportunity for community members to access the site, giving them a reason to experience the connection to the riverfront and understand the potential of a better connection.

On the following page, there are images of murals both within and outside of Pittsburgh. These paintings can clearly symbolize a place or community identity, but can also act as wayfinding devices with a map of the town, little factoids about a building or business, or even cartoons about who lives here. One idea could be to adapt the old or upcoming Monopoly-style drawing of Millvale to be a mural at the pedestrian crossing on East Ohio Street, hinting to trail users that there is a historic, vibrant town beyond the highway. Another potential mural location could be the wall of the overpass that faces Grant Avenue, which blocks the historic view to the Allegheny River. A mural that depicts that historic view, or simply hints at water in some way, would signal that there is something beyond the wall. This could help draw Millvalians towards the riverfront, but could also draw trail users towards Millvale.

Particularly when located on especially visible walls of the PA-28 overpasses, murals may be a great way to hint at the riverfront or town beyond the physical and visual obstructions. The railroad underpass is in worse condition than the highway underpasses. Any mural project would need to have the railroad company's approval and might entail repairing the walls.

This option would require consultations with PennDOT, the railroad company, and other stakeholders, including muralists, artists, volunteer groups, and others. One major issue that concerns PennDOT is the maintenance of the walls to be painted: to be approved, a mural must accommodate their inspections.



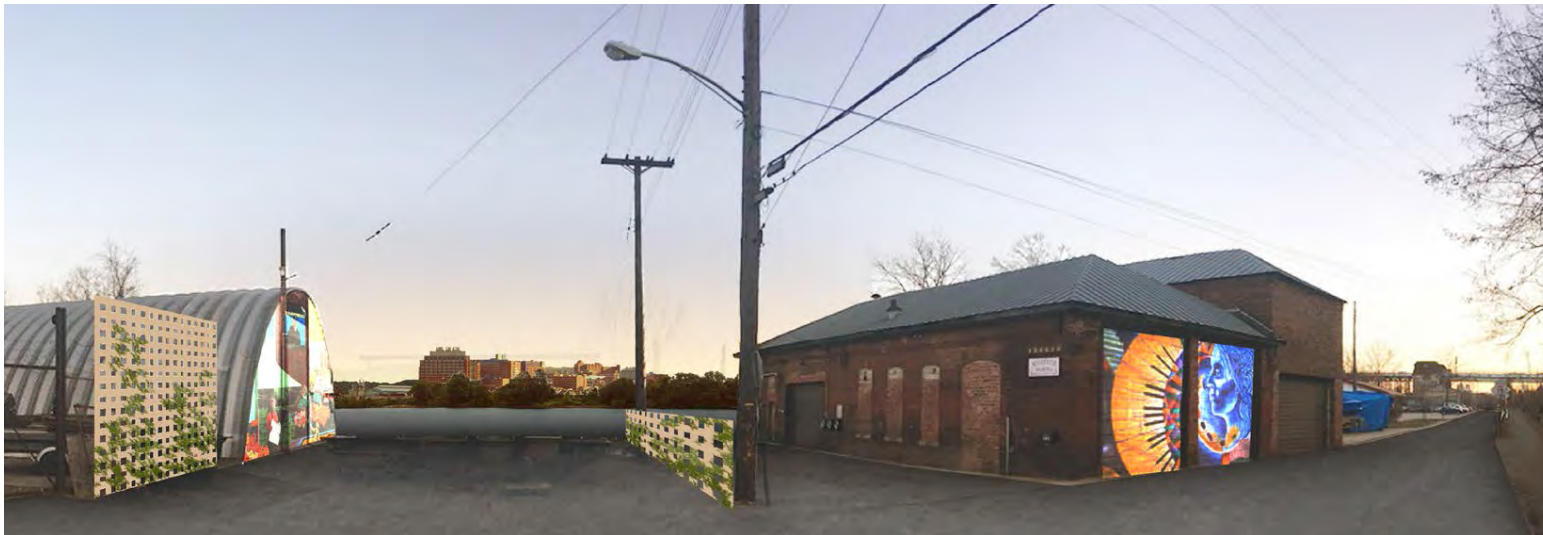








*Imagine the E Ohio Street pedestrian crossing...*



*Imagine the approach to the private marina...*







### 3.

## STREET TREES

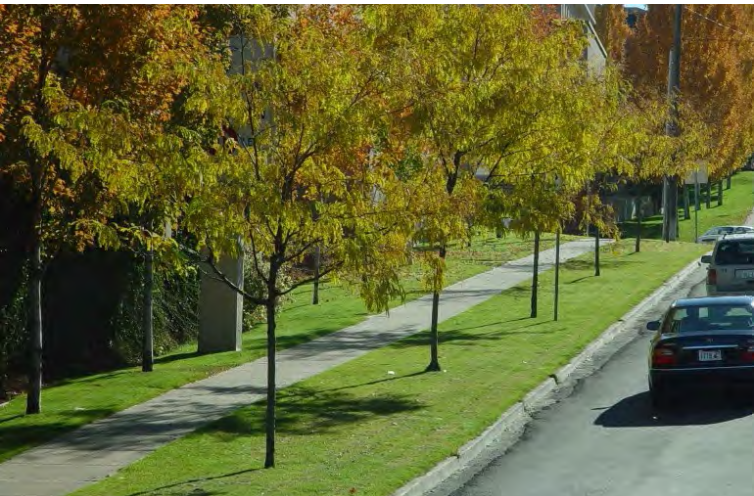
Shade trees planted along streets and other walkways are proven to help with pedestrian safety, drainage, and character. As of now, there are several trees located on the elevated mound holding up PA-28, but not much else. Urban street trees create vertical walls framing streets, providing a defined edge, helping motorists guide their movement and assess their speed (leading to overall speed reductions). Street safety comparisons show reductions of run-off-the-road crashes and overall crash severity when street tree sections are compared with equivalent treeless streets.

There are many local and national precedents that advocate the multiple benefits of this strategy. Some of the other benefits to planting rows of street trees would be to provide natural drainage infrastructure, help improve air quality, improve the spatial quality of East Ohio Street, Grant Avenue, and Lincoln Avenue. The planting of street trees would also help improve psychological health, pedestrian safety and improved businesses. Street trees also significantly increase the value of adjacent property. For this same reason, they are very effective and cost-effective way for a town--especially Pennsylvania's first ecodistrict borough--to re-invent its image.

It is a point of consideration that the planting and maintenance of street trees would be the responsibility of Millvale. However, organizations such as New Sun Rising and Tree Pittsburgh's Tree Tender program would be able to involve the community youth and adults in planting these street trees as an event in the warmer months.

This option would require consultations with PennDOT, the Borough Council, and other stakeholders, particularly landscape designers.

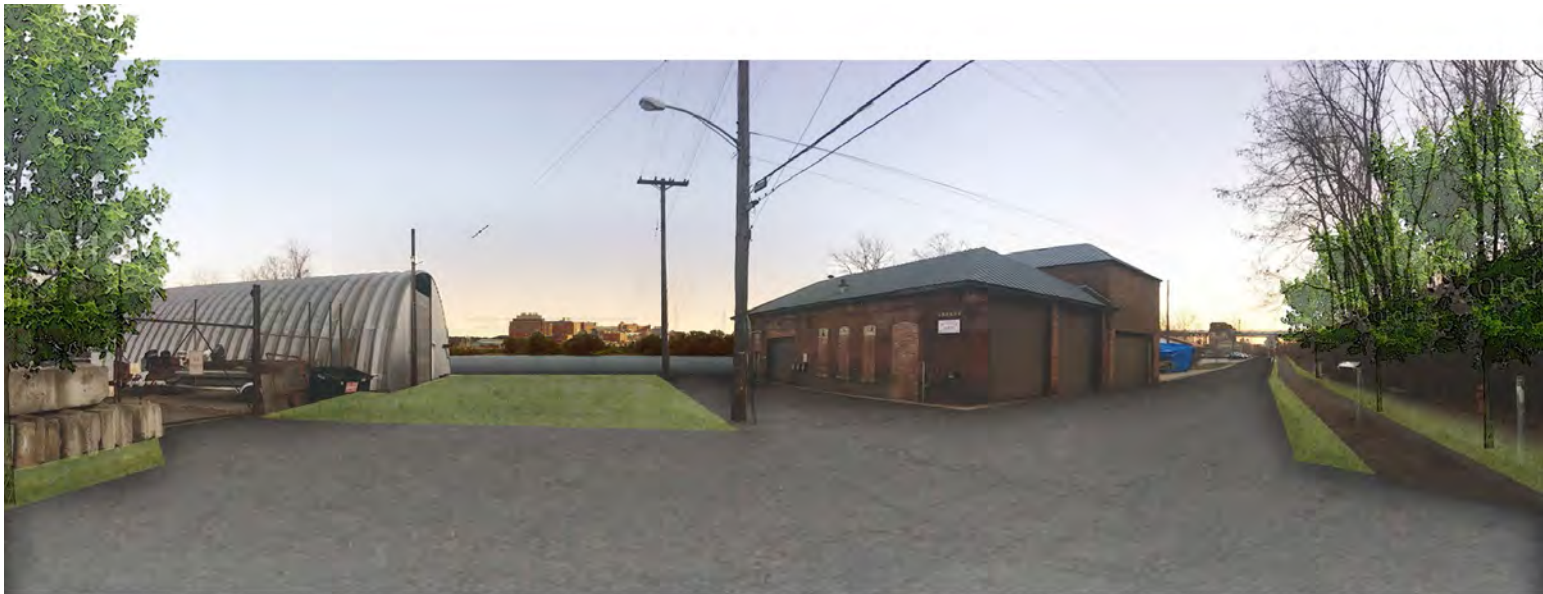








*Imagine the E Ohio Street pedestrian crossing...*



*Imagine the approach to the private marina...*







## 4.

# TRAFFIC LIGHTS

Adding a traffic light and establishing the major turn of East Ohio Street from “the highway” to “the town” into a full intersection may help adjust the character, pedestrian safety, and vehicular flow.

Traffic signals have been installed throughout Pittsburgh to keep traffic moving safely through intersections, but cars that encounter green lights often maintain highway speeds inappropriate to a walkable community. When properly timed, a traffic signal increases the traffic handling capacity of an intersection, and when installed under conditions that justify its use, a signal is a valuable device for improving the safety and efficiency of both pedestrian and vehicular traffic.

In particular, signals may reduce certain types of accidents, most notably, right-angle (broadside) collisions. Traffic lights, like the intersection of Forbes Avenue and Morewood Avenue or Centre Avenue and Negley Avenue are coordinated to provide for continuous or nearly continuous movement of traffic at a definite speed along a given route under favorable conditions. A study of traffic flow might point to improved signal timing at the 40th Street Bridge along with lights at the Millvale intersection. The technology that regulates entrance onto a highway from a ramp--spacing cars appropriately--might also be used to regulate cars entering Millvale.

Another way to regulate traffic is with speed limit signage and real-time speed feedback. The only speed limit sign faces traffic coming from Grant Avenue, which is slow-moving “main street” traffic. The sign announces a speed limit of 35MPH, which effectively speeds up, rather than slows down, the traffic across the intersection and on to the highway ramps. Acknowledging that adding speed limit signs to the street would do little to overcome the built-in highway identity, there is no possibility of enforcing pedestrian safe driving speeds without posting 25 mph limit signs. This is fundamentally the difference between considering this area part of the highway system and thinking of it as part of the Borough. The effectiveness of new speed limit signs can be enhanced by setting up temporary feedback signs, such as the ones that state “Your speed is...”.

This option would require consultations with PennDOT and other stakeholders, particularly traffic engineers.







*Imagine the E Ohio Street pedestrian crossing...*







## 5. SMART SIGNALIZATION

Smart signalization technology is often used to enable more cars to move more quickly through an intersection or an entire urban district. It can be a great benefit to areas that are plagued by gridlock or excessively long back-ups. Regulating traffic on the 40th Street ramps with better signalization might also be pursued to address the Port Authority's concern that unpredictable back-ups there make it infeasible to extend bus service into Millvale.

On the other hand, strategies that are successful at facilitating traffic also have the unintended consequence of attracting more cars due to its relative advantage over other routes. Millvale's goals would not be served by speeding up the traffic on East Ohio Street. That would make it more dangerous for motorists, cyclists, and pedestrians, and would likely attract greater volumes of traffic. This situation calls for an approach to signalization that reduces waiting time at the signal and slows down moving traffic.

The most recent improvements to the Highway 28 exit included better designations of pedestrian crossings, a larger island, and pedestrian signals, which have certainly made a difference. The low volume of pedestrian traffic does not warrant a "pedestrians only" phase in the traffic signal cycle, but it would be helpful to give pedestrians a short headstart. This would allow pedestrians to walk into the street where they are more likely to be seen by drivers. It also would give them a little more time to cross the wide streets.

Current street improvements by both PennDOT and municipalities in other locations include "countdown" lights, which have been demonstrated to reduce the danger of pedestrian crossings when only a few seconds remain. Countdown pedestrian indicators should be installed that begin counting down at the beginning of the "don't walk" interval. They can be on fixed-interval or pushbutton mode.











Designing and installing a large sign (and other branded signage) to a major “entry” location in the road on East Ohio Street may help drivers understand the switch from highway to town better, slowing traffic and therefore increasing pedestrian safety, not to mention the benefits to town character.

Currently, East Ohio Street’s character emphasizes vehicular travel, and appears as if it is a continuation of the highway, even as it becomes “The Curve” and joins with Grant and Lincoln Avenues. Today, one might not realize they’ve entered a town until they are past the bridge on Grant Avenue, near Grant Bar, where the street frontage is strong enough to establish an urban street character. Millvale’s gateway is dominated with highway-like streets designed to speed traffic through and beyond the borough. It gives no clue to Millvale’s downtown investments, its infrastructure improvements, or its ecodistrict assets. If Millvale wants to attract future investments, the gateway needs to be transformed from highway to front door. . By constructing signage that crosses over the roadway further up the ramp from PA-28, Millvale establishes its existence more confidently and much sooner than it does currently. This delineation, if placed correctly, may also emphasize the pedestrian crossing that currently is not well marked. Especially if combined with a more visually-stimulating, attention-grabbing pedestrian crossing, or murals on the walls of either end of the crossing, motorists would not be able to miss the importance or intended use of the pedestrian path.

Like the mural design strategy, town entry signage is also a great opportunity for Millvale to define the borough’s values and identity to outsiders who may not be familiar with the town. When something stands out so plainly from its backdrop (like the nondescript concrete of the PA-28 overpasses), it becomes the center of attention in the space. This would be a great place for Millvale to display its small-town feel and long history with ornamental ironwork or vintage lettering, or to emphasize the borough’s focus on environmental sustainability with a clean, modern design.

This option would require consultations with PennDOT and other stakeholders, particularly environmental designers, graphic designers, and focus groups to determine a theme.

## 6. TOWN ENTRY SIGNAGE





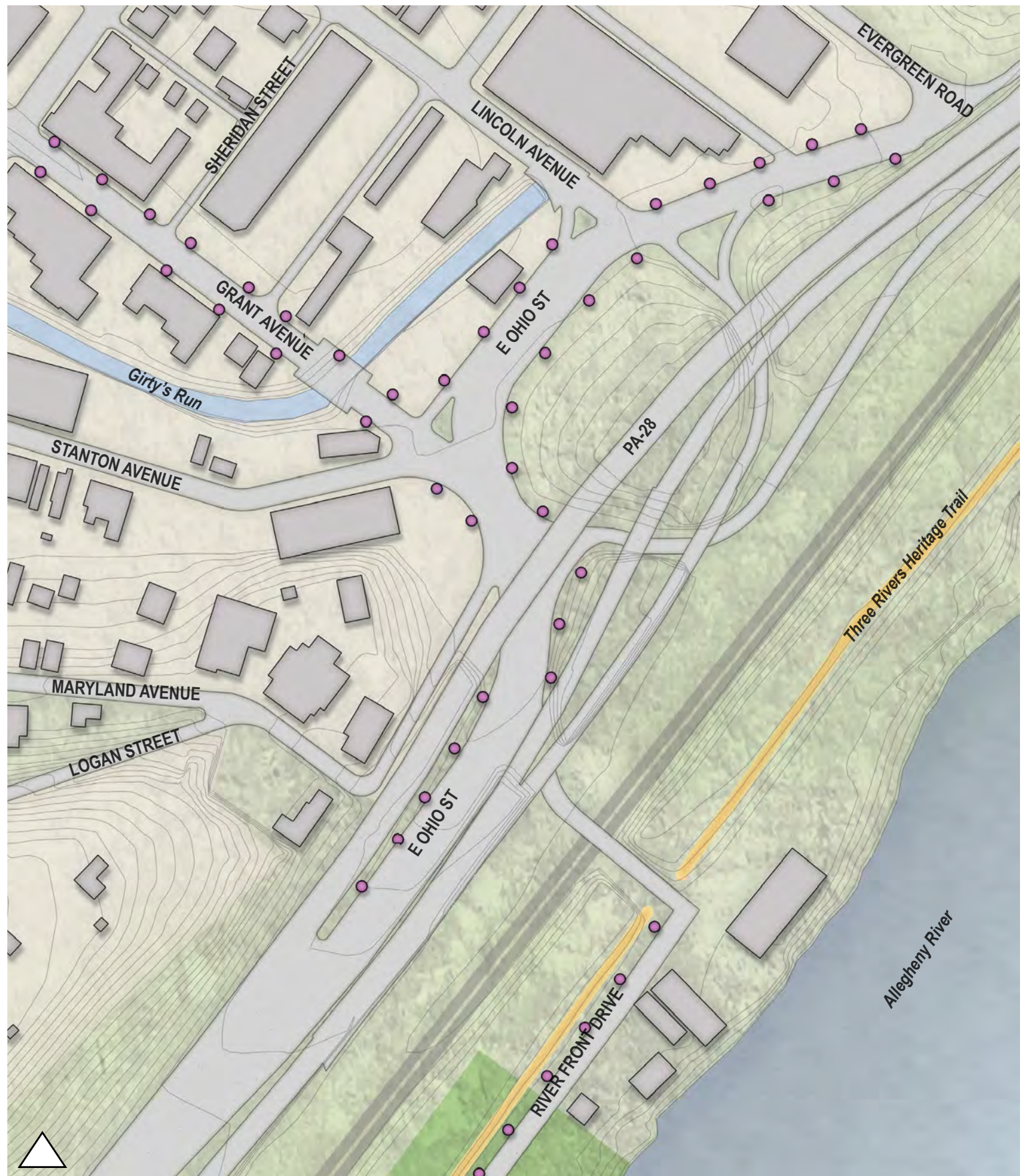






*Imagine the E Ohio Street pedestrian crossing...*







## 7. STREET BANNERS

Designing banners along major axes like Grant Avenue, the Three Rivers Heritage Trail, Lincoln Avenue, and Evergreen Avenue may **provide a clear identity** for the area and **announce upcoming events** (like Millvale Days or holiday-themed banners).

This design strategy is a relatively common way to establish a strong street edge and to give emphasis to a certain aspect of a town. Repeating vertical elements along the edge of a street and/or sidewalk gives the illusion of a more consistent block with sidewalk-oriented storefronts, regardless of the actual street frontage relationships. This repeated element also injects lots of color onto the street, making the town feel a lot more festive, active, and friendly. And when placed along only the major axes of the town (for instance, East Ohio Street, Grant Avenue, and North Avenue), more emphasis is placed on these streets, giving drivers and pedestrians who maybe aren't familiar with the area a clearer understanding of the layout of the space.

As opposed to the more-permanent town entry signage, street banners are also a good place to announce upcoming events or display a more temporary theme. Oftentimes, street banners are holiday- or seasonally-themed, proclaiming "Happy Holidays" or a similar greeting, again making the town character friendlier and seemingly updated. Annual festivals like Millvale Days or the new Food Truck event could be announced here, branded to represent Millvale.

The street banner's pole can also be incorporated with a street lamp that either projects from or sits atop the banner, allowing this design strategy to be combined with a more widespread lighting scheme.

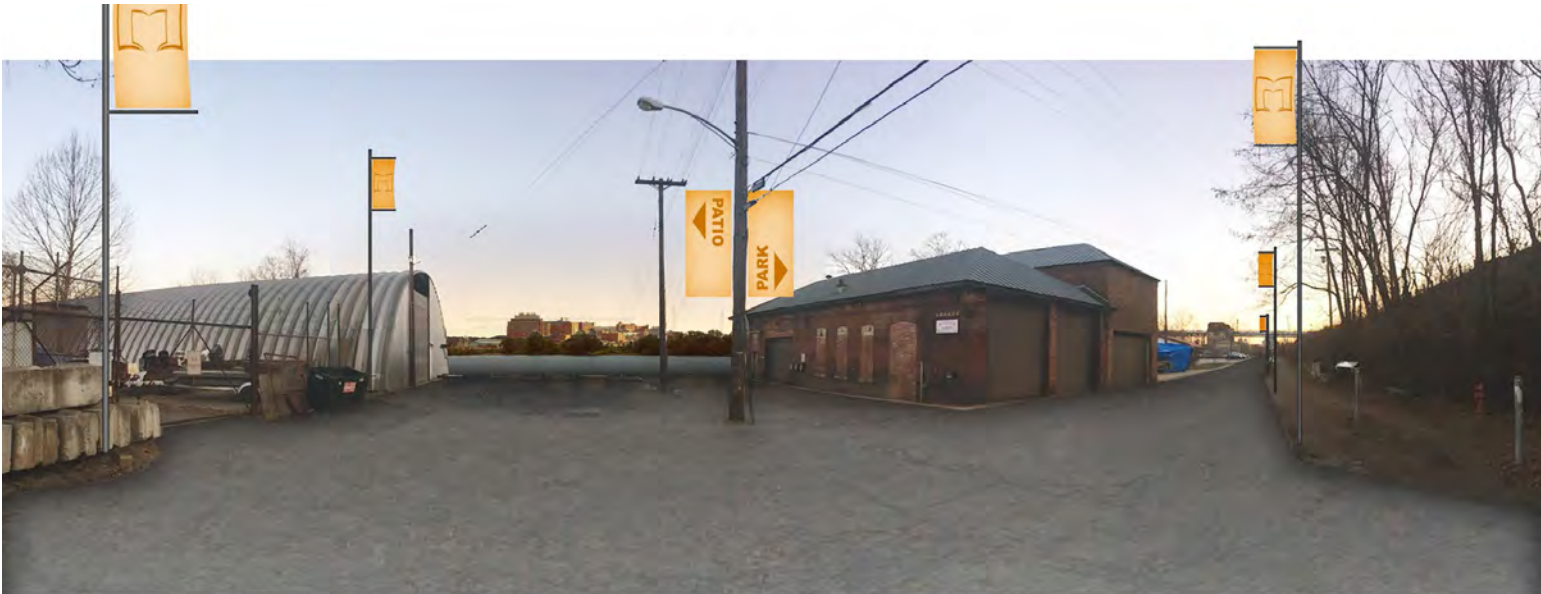
This option would require consultations with PennDOT, civil engineers, and other stakeholders, particularly environmental designers and graphic designers, who could help brand the town's identity or events in the banner design itself.





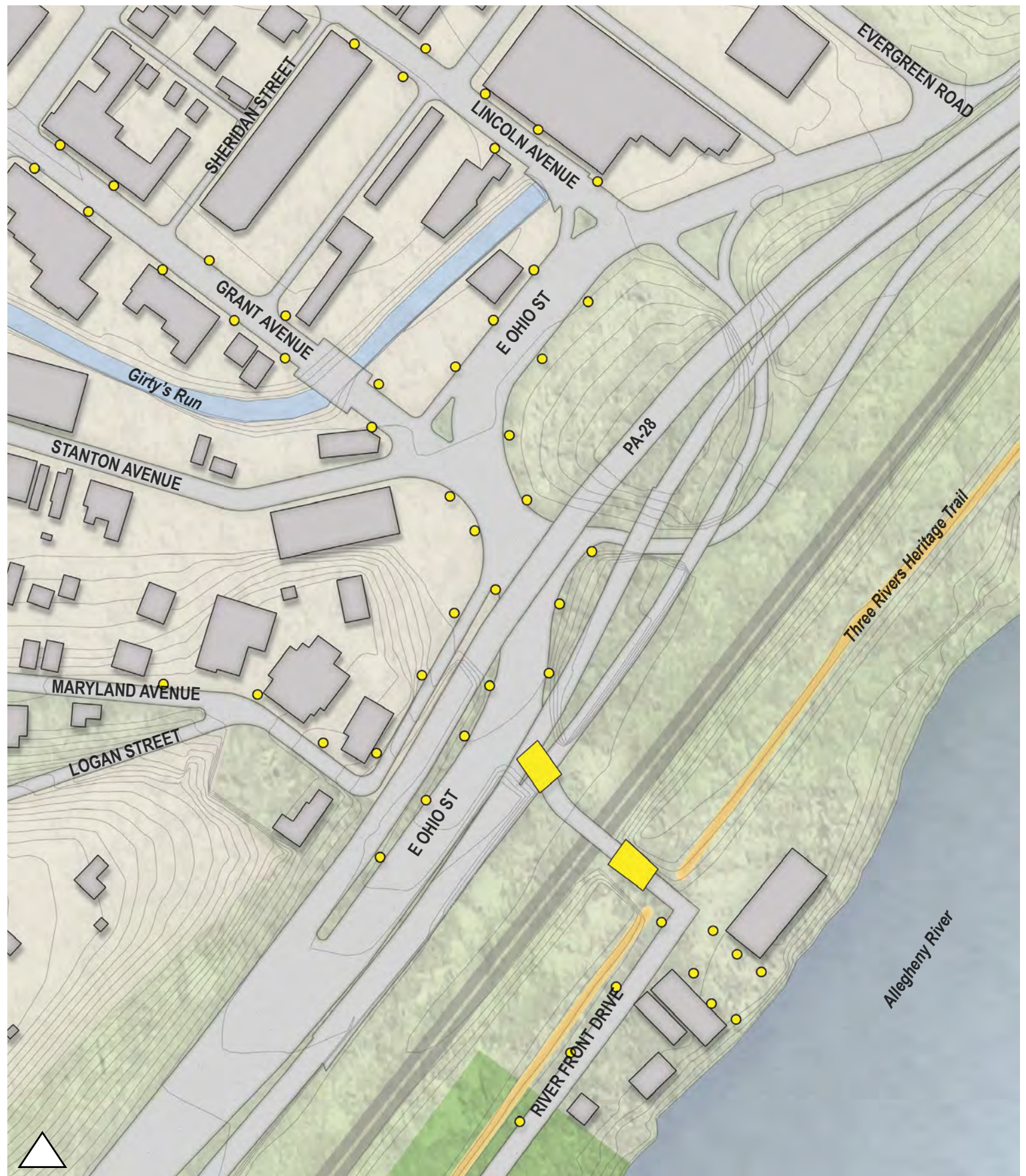


*Imagine E Ohio Street...*



*Imagine the approach to the private marina...*







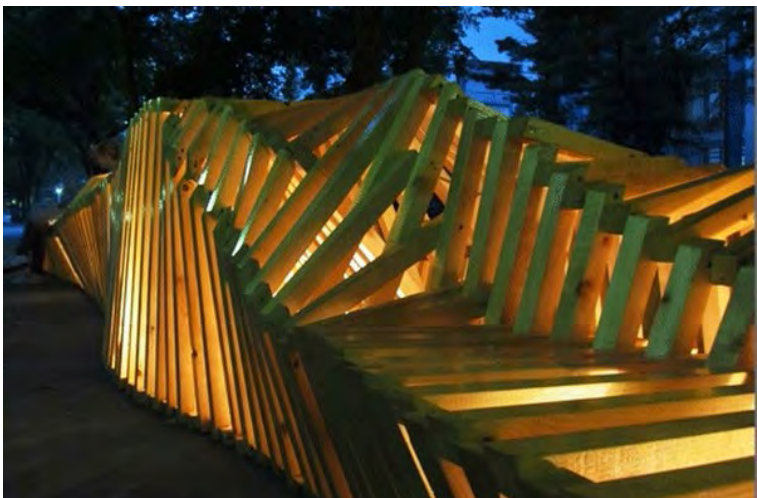
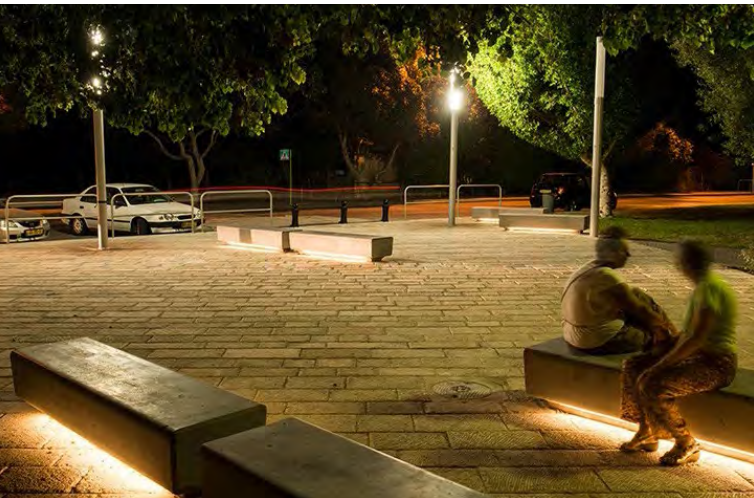
## 8. LIGHTING INSTALLATIONS

Artistic lighting installations create a vibrant atmosphere and are used as both interesting destination features and wayfinding devices, promoting interest in and keeping areas safer at night.

It is fairly evident, particularly in the crossing under PA-28, that the environment is dark, gloomy and potentially unsafe with unplanned graffiti and degrading paint. Implementing innovative or sculptural lighting installations will not only prove to increase visibility in the area throughout the day and night, but also increase pedestrian safety in the area, provide an interesting space that can attract more visitors into Millvale, and attract Millvalians toward the riverfront.

But one should not stop at just the poorly-lit spaces under the highway. If we are to consider lighting installations as a strategy, it would be best to look at the existing lighting conditions in Millvale, from street lamps to outdoor patio lighting. Lighting along the streets and roads in Millvale will help reduce criminal activity in the area and provide visibility for pedestrians, bicyclists and drivers alike. Given the funds, it would be beneficial to invest in LED lighting all throughout Millvale, as it would not only be environmentally friendly, but also have a higher output compared to conventional lights. LED street lights are also free from hazardous chemicals such as mercury and lead which give out toxins.

This option would require consultations with PennDOT, the Borough Council, and other stakeholders, particularly artists, lighting designers, and electrical engineers.







*Imagine the E Ohio Street pedestrian crossing...*



*Imagine the approach to the private marina...*

		IMPROVED CROSSWALKS	PAINTED WALLS	STREET TREES	TRAFFIC LIGHTS	SI
PHYSICAL	<b>PEDESTRIAN SAFETY</b> Does the strategy increase the safety of pedestrians across the highway ramp and railroad tracks?					
	<b>WAYFINDING</b> Does the strategy improve wayfinding to guide travelers between Millvale and the Allegheny River?					
	<b>AESTHETIC QUALITY</b> How does the physical manifestation of the strategy fit into Millvale and represent the Borough's values beautifully?					
FINANCIAL	<b>COST BENEFIT</b> How much would Millvale have to spend on design, construction, and completion versus its positive impact?					
	<b>ECONOMIC IMPACT</b> How does the strategy benefit residents financially and promote investment?					
	<b>BUSINESS CONNECTION</b> How does the strategy benefit Millvale's existing businesses and invite more businesses to the town?					
PROCEDURAL	<b>MAINTENANCE</b> How much would Millvale have to spend on upkeep and repairs during the intervention's lifespan?					
	<b>STAKEHOLDERS INVOLVED</b> How much stakeholder support would be needed to implementation? Who are the major stakeholders?					
	<b>INFRASTRUCTURE</b> How much infrastructural investment would be required for this strategy's implementation?					



# DESIGN STRATEGY EVALUATION

SMART GNALIZATION	ENTRY SIGN	STREET BANNERS	ARTISTIC LIGHTING

The criteria for evaluation listed in this matrix allows for simple comparisons to be made between potential strategies. Some of these evaluation criteria should be prioritized over others.

In categorizing these criteria by the design objectives, any design strategy should be evaluated before, during, and after implementation in order to assess its benefits and deficiencies in comparison with other potential strategies that may be added to a sequence of implementation. Basically, this matrix allows an evaluative process to take place in order to assess a design strategy's ability to accomplish the objectives set forth previously in this report, which are:

1. to improve safety and accessibility (physical),
2. to involve local stakeholders (procedural), and
3. to initiate greater investment (financial).

	LOW STRATEGIC VALUE
	MEDIUM STRATEGIC VALUE
	HIGH STRATEGIC VALUE
	LOW STRATEGIC VALUE
	MEDIUM STRATEGIC VALUE
	HIGH STRATEGIC VALUE
	LOW STRATEGIC VALUE
	MEDIUM STRATEGIC VALUE
	HIGH STRATEGIC VALUE

The Remaking Cities Institute team researched various funding sources that could help Millvale complete this project. Through this research we will also recommend one of the following funding opportunities, as it pertains most directly with Millvale and the project in question; however, all are sources worth further investigation. This list is not comprehensive.

**Greater Pittsburgh Arts Council**

The Lift Grant, offered by the Greater Pittsburgh Arts Council, is aimed at helping further the work, career, and skills of the people involved. There are two grants awarded annually, ranging from \$5,000 to \$20,000. We could see this award going to New Sun Rising (or a member within it) to assist in the completion of this project.

**Carnegie Library of Pittsburgh**

The Carnegie Library, although not offering grants, offers workshops and seminars towards reseraching and obtaining grants. More specifically, there are seminars providing an introduction to finding grants locally, as well as an orientation to Pittsburgh’s Nonprofit Resource Center. Once again, we see this as a potential venue for New Sun Rising to bring in more funds for not only their pilot projects, but to accelerate this particular project.

**The Pittsburgh Foundation**

The Pittsburgh Foundation’s category of “Small and Mighty Grants” was launched in 2016 to help bridge the gap between the foundation’s grant-making and neighborhood-based nonprofits that work to better Pittsburgh and its neighboring communities. These series of grants were created to reduce common obstacles and barriers to grant-seeking, and offers up to \$15,000 through a streamlined process that delivers decisions in as little as sixty days.

The eligibility criteria for this grant are as follows:

- Have an organizational budget of \$600,000 or less;
- Organizations certified as tax-exempt under Section 501(c)(3) of the U.S. Internal Revenue Code may apply. Groups without official nonprofit status may also apply, but will need to partner with a 501(c)(3) organization to serve as the fiscal sponsor for the request;
- Organizations applying for operating support must have at least two years of operating history in Allegheny County.

The requirements also state that higher priority for this grant would be given to organizations that are located in (or primarily serve) economically-distressed and/or under-served neighborhoods.

**We believe that The Pittsburgh Foundation’s Small and Mighty Grant is the best and most viable option** to fund this project to its completion and would recommend that the Borough of Millvale and New Sun Rising work together to move forward and apply for this grant.

It is understood that searching for grants is a never-ending process. There are most definitely many funding opportunities available for Millvale to apply for and push this project forward, and while we recommend one of the above options, we would also recommend researching and applying for more grants as well.



# FUNDING AND OTHER INITIATIVES

There are an abundance of projects related to ours both in Millvale and in surrounding communities. Looking to these completed or in-progress initiatives may prove helpful in establishing other funding sources, stakeholders, and more.

## **Three Rivers Heritage Trail Improvements/Extension**

The improvement and extension of the Three Rivers Heritage Trail, which currently ends within our project scope,

## **Triboro Ecodistrict**

In 2012, Millvale joined a growing number of communities to produce an Ecodistrict Plan, facilitated by local firm evolveEA, with the goal of prioritizing equity, resilience, and climate protection. In its first phase, Millvale chose to focus on three areas: energy, food, & water in order to combat the ever-present energy crisis & its financial burden, to solve the food desert condition of Millvale, & to mitigate the problem of flooding. Three years later, the community expanded these goals to include air quality, transportation, and equity.

New Sun Rising spearheaded the creation of the Triboro Ecodistrict in 2017, expanding Millvale's nationally-recognized model to neighboring Etna and Sharpsburg. Again partnering with evolveEA, the three communities aim to scale up the efforts in Millvale, which involved a community land trust expansion in partnership with the Lawrenceville Corporation, new solar panel installations, and air quality monitoring through the EPA's Village Green Project in partnership with the University of Pittsburgh and Carnegie Mellon University.



Image Source: Rebecca Lefkowitz (2018)



# MEASURING PROGRESS

In any community project, it's imperative that some sort of quantifiable measurements be taken before and after implementation in order to track the improvements and/or failures of the interventions. These litmus tests should be considered in both the short- and long-term in order to properly gauge each implemented design strategy's impact on residents' quality of life and the established goals of the project. This list is not comprehensive, but may provide a basis for quantification.

- More people walk between the urban center of Millvale and the Allegheny Riverfront;
- More people ride bikes on the Three Rivers Heritage Trail, in Millvale, and/or between the two;
- There is more investment in Millvale in terms of real estate;
- More trail-users frequent Millvale's businesses;
- There is more demand for downtown business space; and
- There is more 'buzz' about Millvale in the media.

These measurements are in keeping with the project's original objectives of (1) improving the safety and accessibility of the route between Millvale and the Allegheny Riverfront, (2) involving local stakeholders in the design and implementation processes, and (3) initiating greater investment in the town and the riverfront.





# RECOMMENDED NEXT STEPS

By providing a set of possible design options to Millvale, we hope to instigate momentum for the improvement of safety and accessibility between the town and the Allegheny riverfront, the involvement of local stakeholders in community projects, and the initiation of greater investment in the businesses and urban fabric of Millvale. We believe that implementing some or all of the design solutions provided in this report will have beneficial impacts on Millvale's social, ecological, and economic conditions and may be achieved in a relatively short time frame. More concretely, we recommend a few actions to be taken immediately in order to prepare for any future design proposals:

1. In order to gain their approval in any intervention that may involve PennDOT, a draft of a letter was drafted for the Borough by the research team based on discussion with PennDOT. It is being reviewed by Borough leaders and steering committee members. According to Todd Kravits, traffic engineer and a member of this project's steering committee, recommends writing PennDOT with questions or requests so that it is recorded and considered.
2. The Bike Sharrows on E Ohio Street should be shifted to more accurately point towards Grant Avenue.
3. The E Ohio Street crossing that ramps up towards I-28 and provides pedestrian access to River Front Drive currently lacks clear signage to direct pedestrians to use the crosswalk warning signal. Adding small signs to the east side of the signpost to signal the location of the button to activate the blinking lights should be added to increase their use and therefore pedestrian safety at the critical crossing point.
4. A traffic count should be taken on E Ohio Street in order to better revise traffic patterns in the future to ease confusion.
5. Fundraising for a mural project around or alongside the highway overpass should be initiated in order to issue a Request for Proposals as soon as possible. Artists would require input from PennDOT in order to accommodate their maintenance requirements as well as the community's desires.













[illegible]

SLAB ACCESS ROAD

WALL

TEMPORARY CONSTRUCTION EASEMENT

CONC WALL

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

SLAB ACCESS ROAD

PLANS PREPARED BY  
MICHAEL BAKER JR.,  
MOON TOWNSHIP,  
INDIANA

216

PLANS PREPARED BY  
MICHAEL BAKER JR.,  
MOON TOWNSHIP,  
ILL.





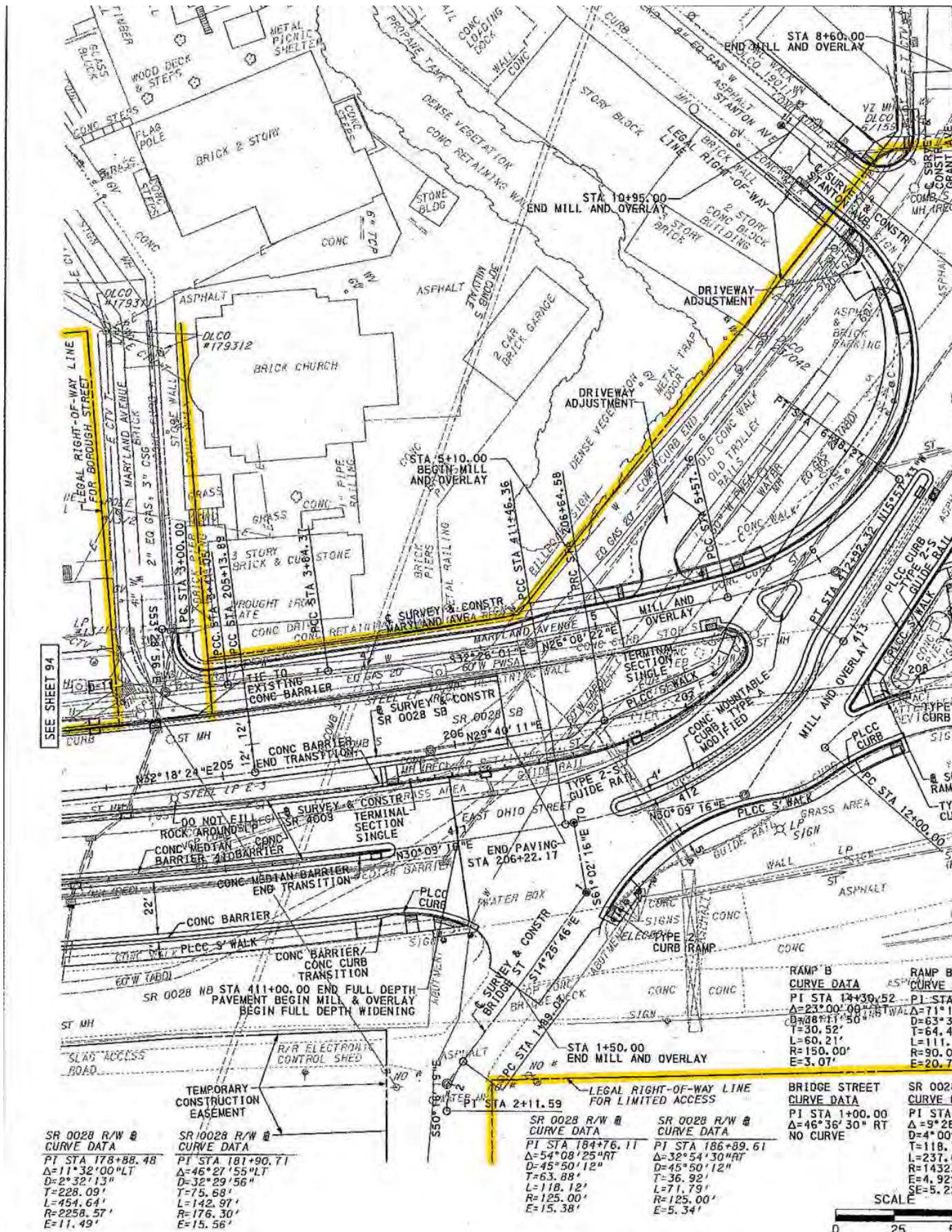
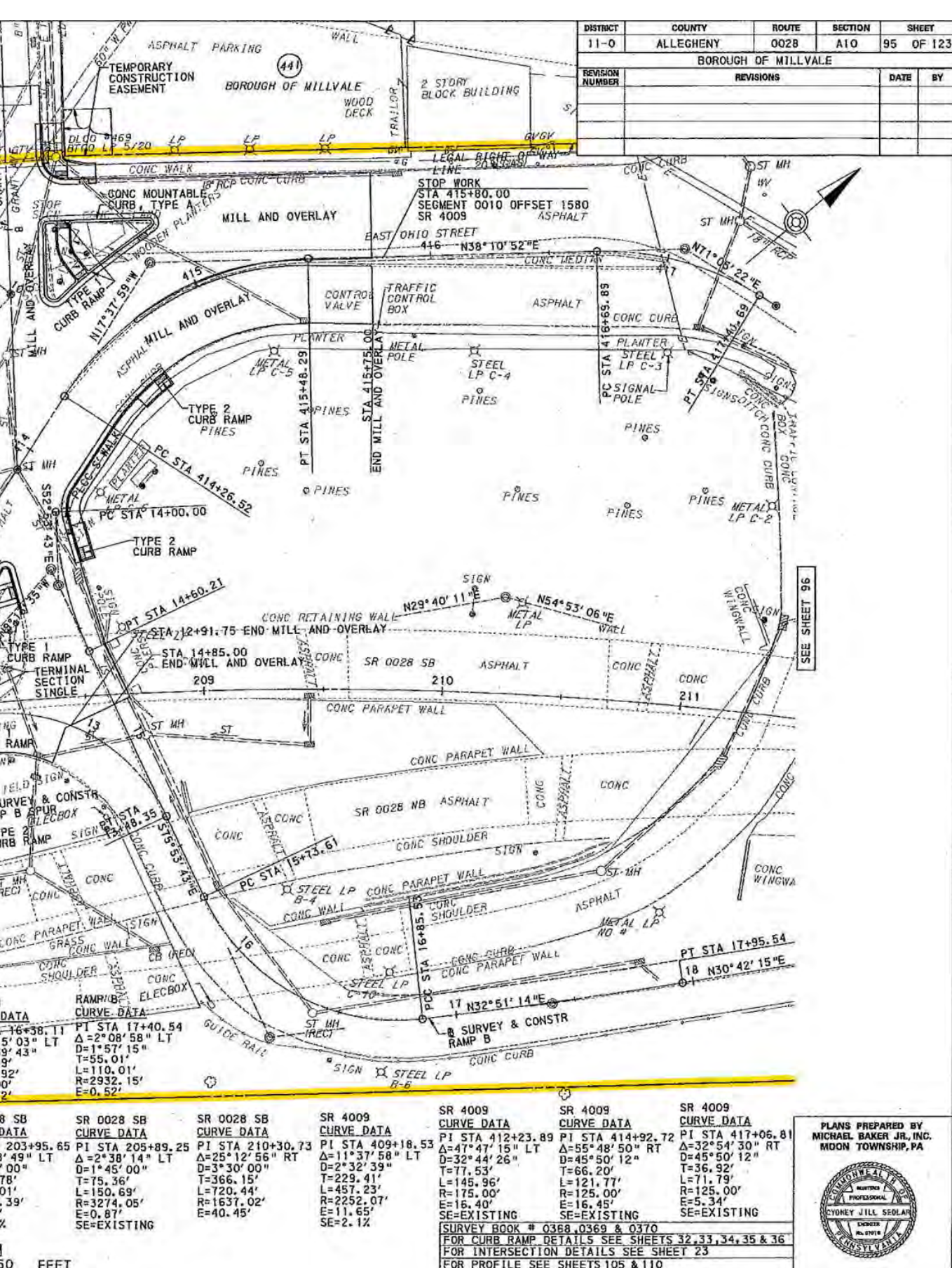


Image Source: PennDOT  
 The Rights-Of-Way as mapped by PennDOT is marked by a yellow line.





DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	0028	A10	95 OF 123
BOROUGH OF MILLVALE				
REVISION NUMBER	REVISIONS	DATE	BY	

PLANS PREPARED BY  
MICHAEL BAKER JR., INC.  
MOON TOWNSHIP, PA

SYDNEY JILL SEDLAK  
REGISTERED PROFESSIONAL ENGINEER  
No. 0718  
PENNSYLVANIA

0 FEET



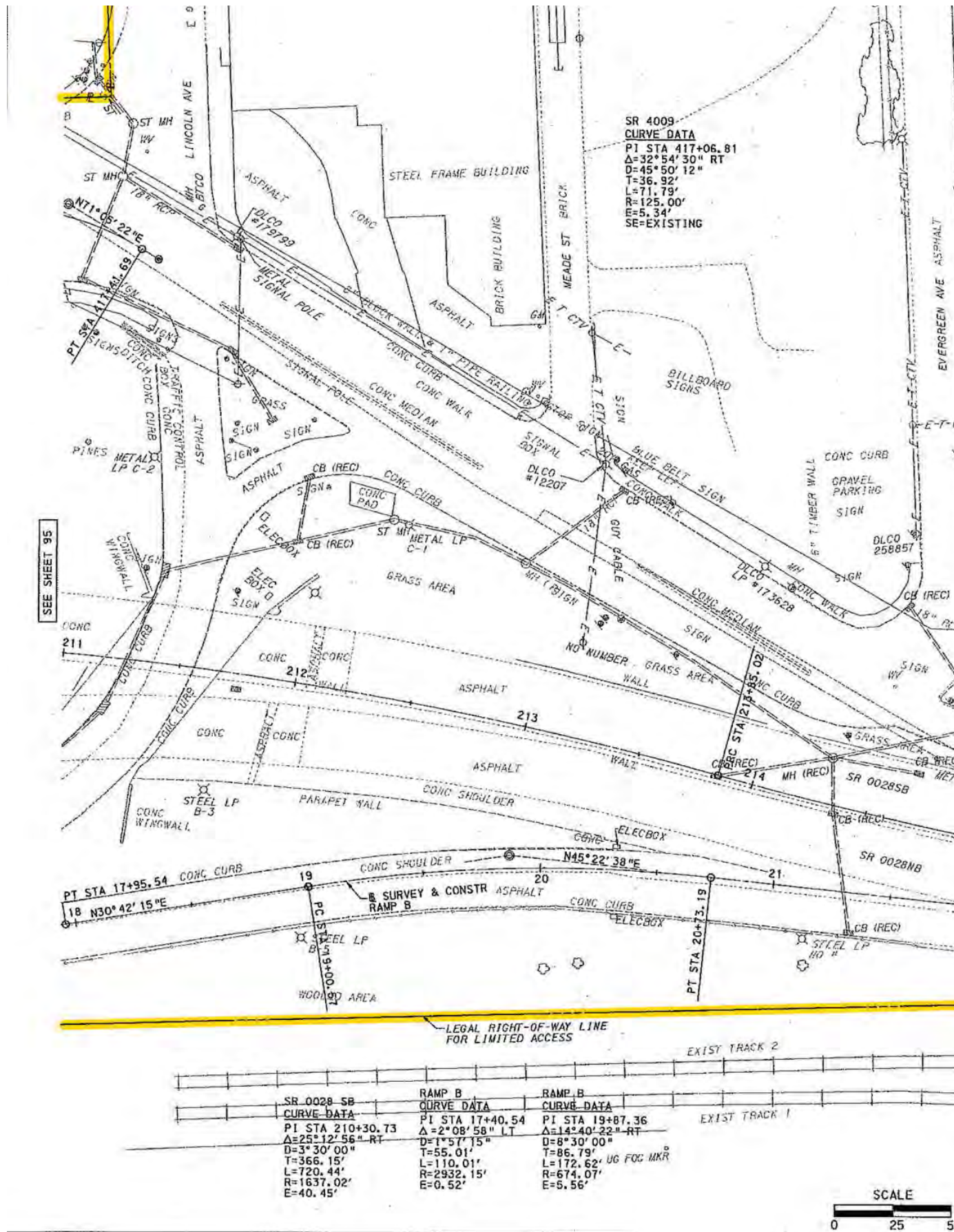
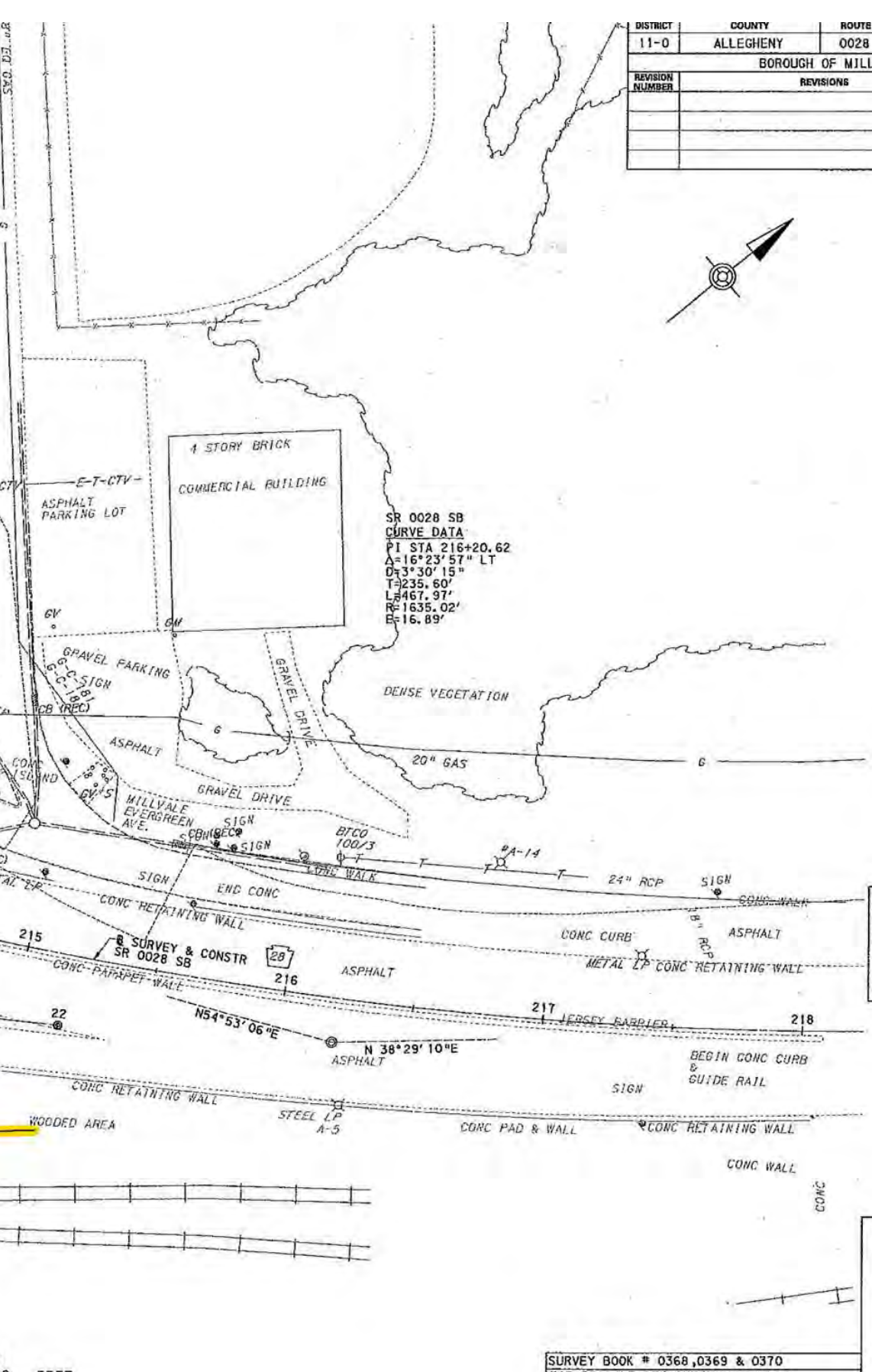


Image Source: PennDOT  
 The Rights-Of-Way as mapped by PennDOT is marked by a yellow line.



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	0028	A10	96 OF 123
BOROUGH OF MILLVALE				
REVISION NUMBER	REVISIONS	DATE	BY	



SEE SHEET 97

PLANS PREPARED BY  
MICHAEL BAKER JR., INC.  
MOON TOWNSHIP, PA



SURVEY BOOK # 0368, 0369 & 0370  
FOR PROFILE SEE SHEETS 106 & 107

0 FEET