

6.4 M16 South Side/ South 21st Street

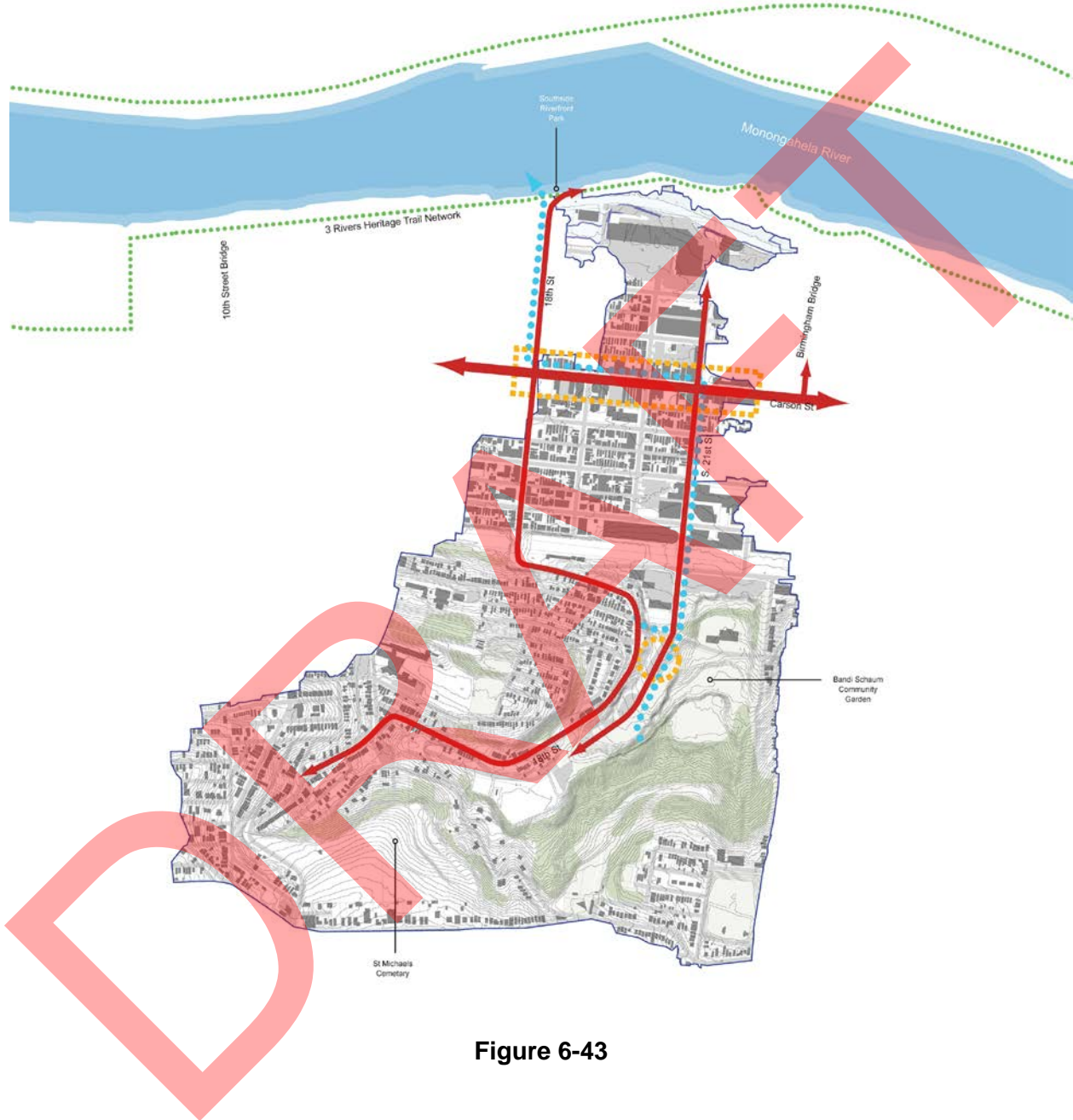


Figure 6-43

6.4.1 Sewershed Existing Conditions

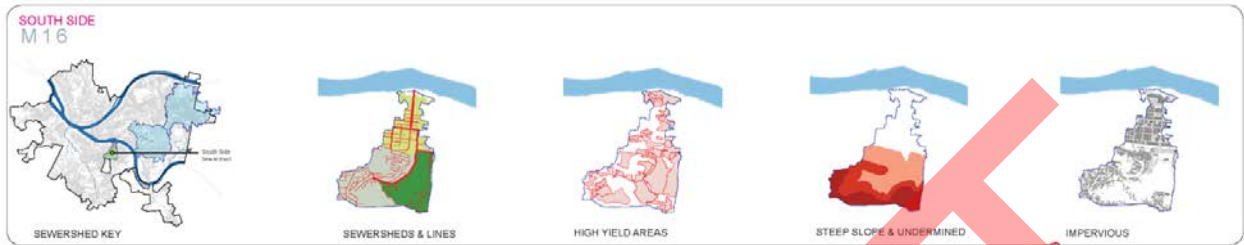


Figure 6-44



Figure 6-45

The M16 South Side watershed is the smallest of the six focus sewersheds. South Side Park comprises a good portion of the south half of the sewershed, and this park has a number of opportunities for capture. The park also contains a majority of the steep slopes of this sewershed which contribute to sediment loads into the system. Within the park itself are a mix of programmed spaces like the football field, where existing springs seep from the adjacent hillside. Throughout the park are a number of non-programmed uses like community gardens and informal gathering spaces. The South Side Slopes Neighborhood Association is active and interested in improving the park and is currently seeking funds to complete a master plan. South 21st Street extends north from the Park, intersecting with a neighborhood mixed-use retail district on East Carson Street, which is an active corridor with reinvestment capital earmarked for implementation in the coming

years. Continuing east on Carson, South 18th Street intersects and connects to the river as it extends north to the Monongahela River.

6.4.2 M16 South Side/ South 21st Street: Urban Design Framework Plan

Existing access to the river is a unique characteristic of this sewershed. **Riverfront Park** access via an existing at-grade railroad crossing at the north end of South 18th Street provides a great opportunity for an enhanced riverfront connection or potential daylighting of spring fed flows from South Side Park.

South 18th Street extends south from the River and intersects with Carson Street, where the mixed-use retail district is centered. South 18th Street continues south, eventually defining the west border of South Side Park, along the base of the slopes of the Southside Slopes neighborhood, affording it the ability to capture and convey runoff.

Carson Street is a PennDOT highway as well as being the vibrant business district for the neighborhood. It can link South 18th Street (with its riverfront connection) to South 21st Street. PennDOT plans on improving this corridor in 2017 and proposed GI should be coordinated with these efforts.

South 21st Street intersects with Carson and extends up into the existing valley of South Side Park where it terminates, making it an effective street for GI. This street has already been identified for GI in proposed plans generated with community input.

The **South Side Park** valley has gentler slopes and broad section. There are a number of surface parking lots in this area at the base of the valley. Continuing up the valley, **Quarry Field** is a football field used for various recreational activities. Spring water seeps from the slopes at the field's edge and could create a baseflow for a daylighted stream.

The M16 sewershed provides a number of opportunities for GI in critical corridors that would link South Side Park with the mixed-used retail district and the riverfront. The Urban Design Framework emphasizes the opportunity for green infrastructure-focused stormwater conveyance system from the highest elevations of the watershed to the River; providing significant urban connectivity between neighborhoods and the City's natural resources.

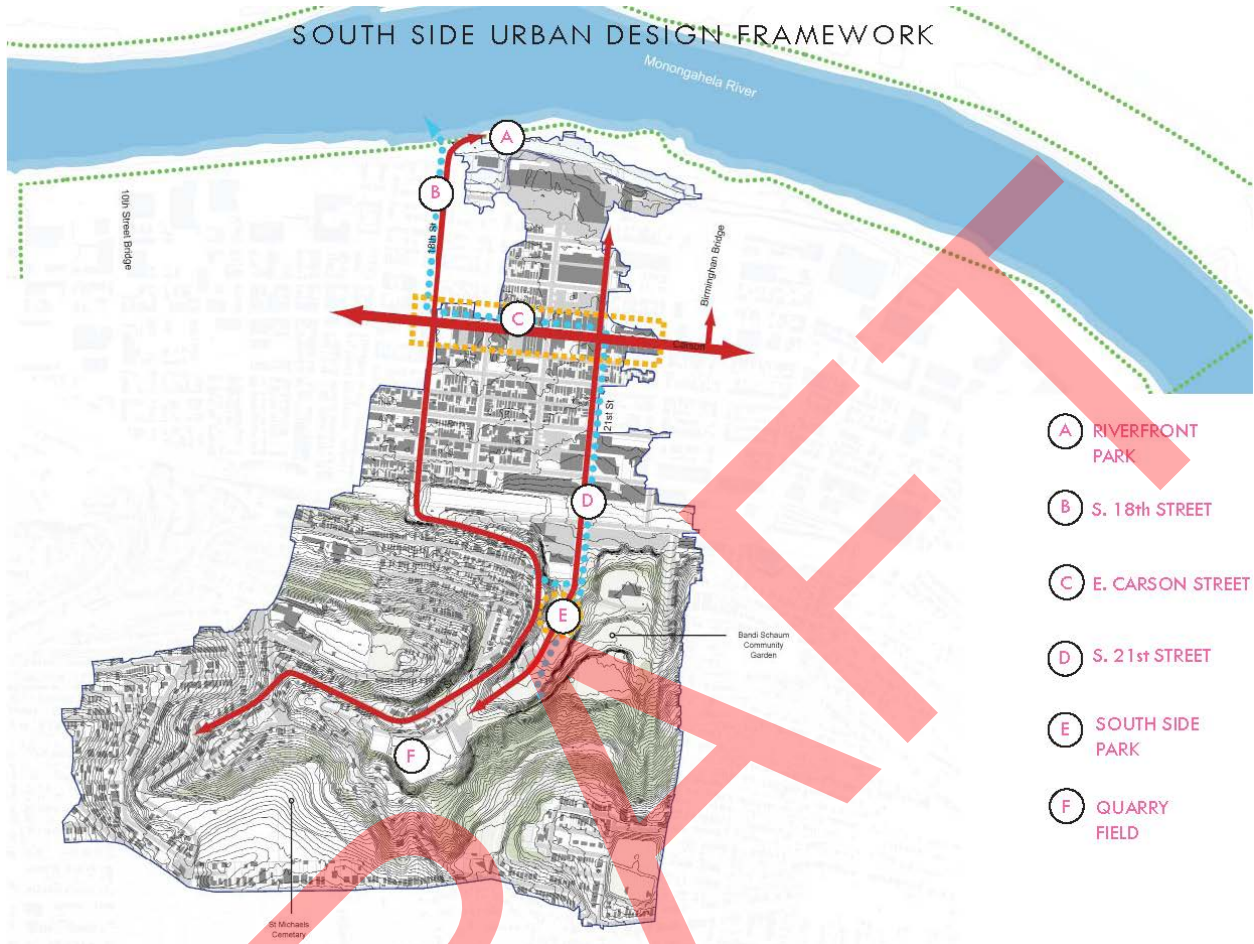


Figure 6-46

6.4.3 M16 South Site Slopes/ South 21st Street: Green Infrastructure Concept Plan

South Side Park has the potential to capture large volumes of stormwater along its western edge, including Quarry Field. Here groundwater seeps could be daylighted through the park. From the park, South 21st Street can convey water north utilizing pervious pavement and green street improvements. At East Carson Street, bioswales and pervious pavement convey the stormwater west to South 18th Street. Along the vibrant mixed-use street, East Carson improvements should be coordinated with future PennDOT projects to improve the pedestrian experience and safety. South 18th Street provides the final connection to the existing riverfront via an at-grade railroad crossing.

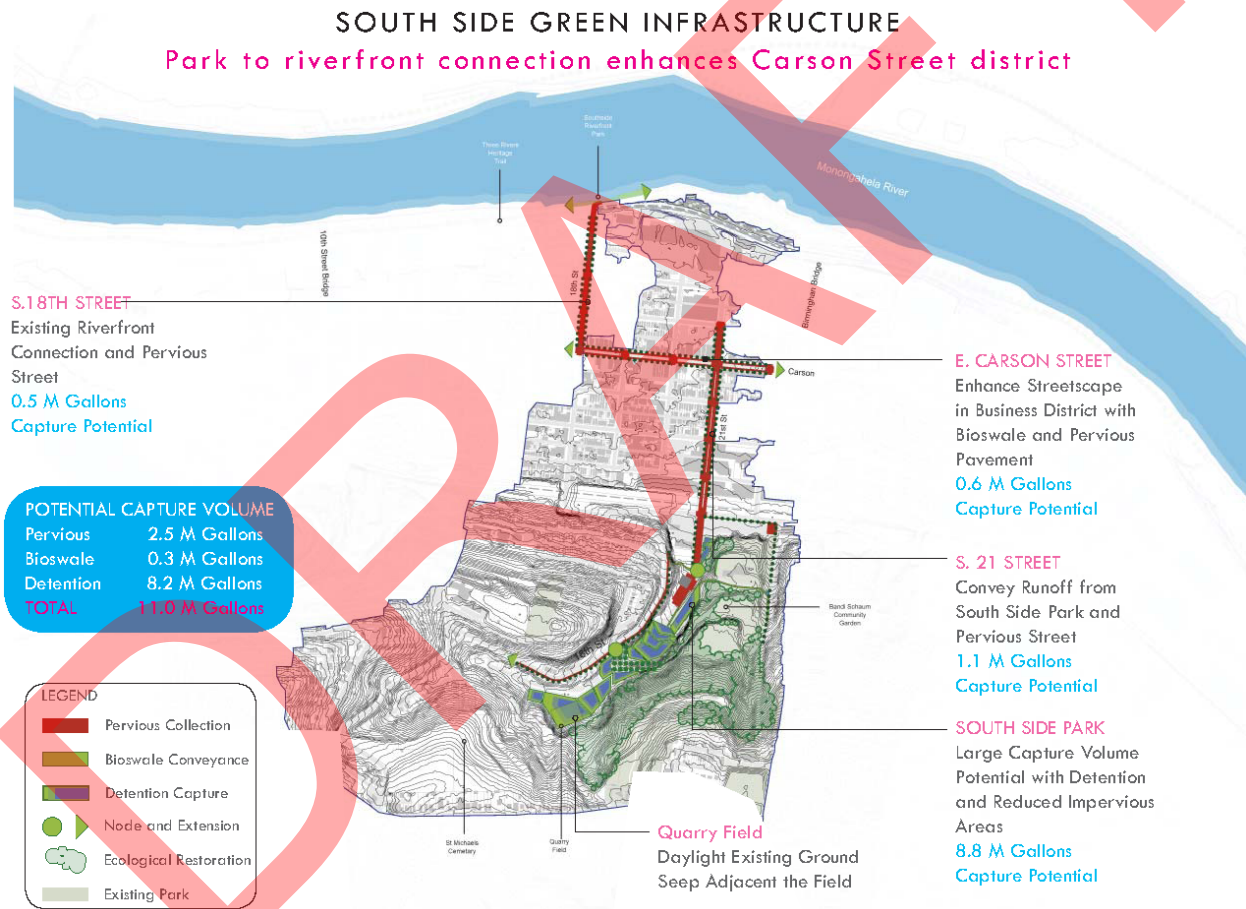


Figure 6-47



Figure 6-48

The existing **riverfront connection** at **South 18th Street** is unique in comparison to the other priority sewersheds; enhancing this connection will further strengthen awareness of the Riverfront Park, highlight connectivity for people throughout the sewershed, and allow the completion of a green infrastructure conveyance system or a daylighted stream flow that begins in South Side Park.



Figure 6-49

East Carson Street serves as the nucleus for retail in the South Side neighborhood. This vibrant street would be improved by making it more pedestrian and bike friendly. As PennDOT looks to make improvements on this state highway, GI should be incorporated. The existing street width and sidewalks accommodate the introduction of a center bioswale and pervious pavement would further reduce runoff and collection and

capture opportunities (see section views as follows). East Carson Street connects with South 21st Street, four blocks to the west of South 18th Street.

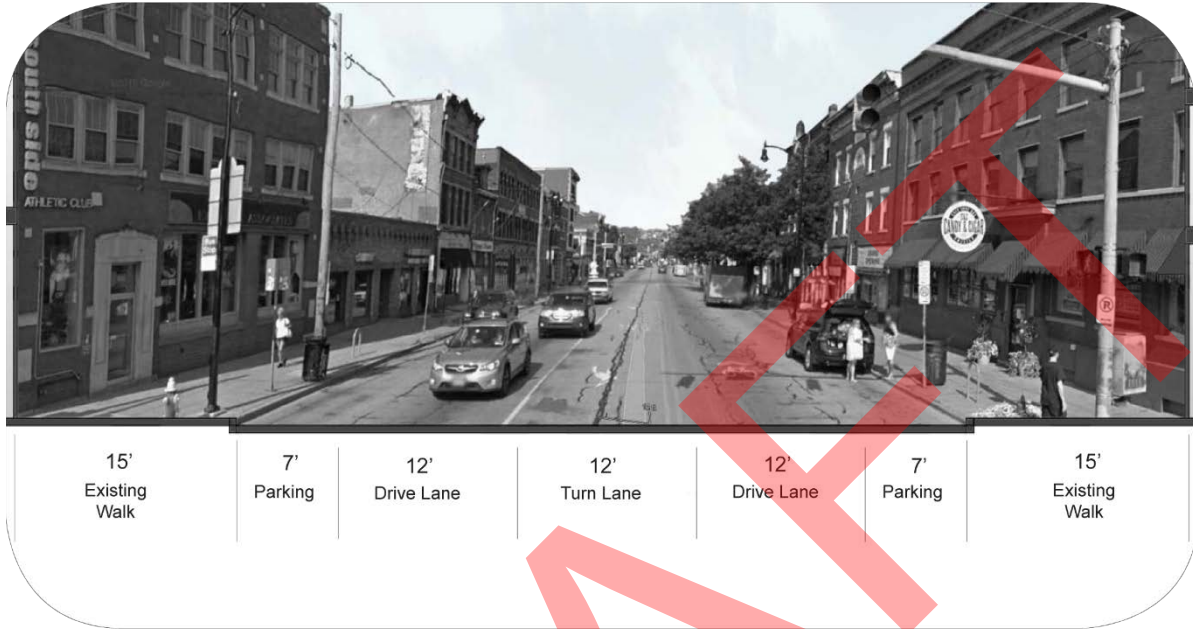


Figure 6-50: Existing East Carson Street



Figure 6-51: Proposed Bioswale, Pervious Parking, and Street Trees in East Carson Street



Figure 6-52

GI has been proposed in **South 21st Street** in redevelopment plans and is supported by the community. The gentle slope of the street lends itself to the introduction of pervious pavement and additional GI in the street. South 21st Street connects Carson to South Side Park and should be considered as a green boulevard and gateway to an underutilized portion of the park.



Figure 6-53

South Side Park is a critical area for CSO reduction in the sewershed. It contains large areas of high yield in addition to providing areas for large storage volumes. These storage sites are placed within the existing valley on the western edge of park. The lower slopes and broad cross-section of this valley accommodate a series of stepped ponds.

Quarry Field is at the upper reaches of the valley and the adjacent hillside groundwater seep could serve as baseflow for a daylighted stream that continues down the valley. At the base of the valley where South 21st Street terminates, existing unused parking lots could be depaved or transformed to pervious pavement. This area at the base of the valley has also been discussed as a potential site for a PWSA Operations Center that would be integrated into the environmental education programming in the park, complementing GI concepts in this sewershed.

6.5 A41 Heth's Run

6.5.1 Existing Sewershed Conditions

The A41 Sewershed is located in some of Pittsburgh's most stable residential neighborhoods. This sewershed is configured similar to the watershed and the sewer follows the path of the now underground Heth's Run, which once was tributary to the Allegheny River. At the highest points in the shed, Stanton Heights, Garfield, and East Liberty contribute some stormwater but the majority of runoff comes from the Morningside and Highland Park neighborhoods. The neighborhoods are mostly comprised of single family detached homes and there is little vacancy. The Heth's Run valley is currently used as a parking lot for the Pittsburgh Zoo and is contiguous with Highland Park, one of the largest municipal parks in the city. Highland Park is also home to both a covered and uncovered drinking water reservoir.

Today's sewer mains follow hydrologic flow lines very closely. Heth's Avenue and Heth's Way were built on top of the main branches of Heth's Run. The majority of A41's stormwater follows here today.