# SUMMIT TERRACE

The Summit Terrace Neighborhood was evaluated to identify opportunities to implement GSI on vacant lots and corridors identified by the community. Based on that evaluation, proposed GSI in the neighborhood is focused on Walnut Street from Jonestown Street to 13th Street and Bailey Street from 12th Street to 13th Street. Although Summit Street from Bailey Street to Royal Terrace Park was also identified as a priority, it was not considered a favorable corridor for GSI implementation due to space constraints and utility conflicts.

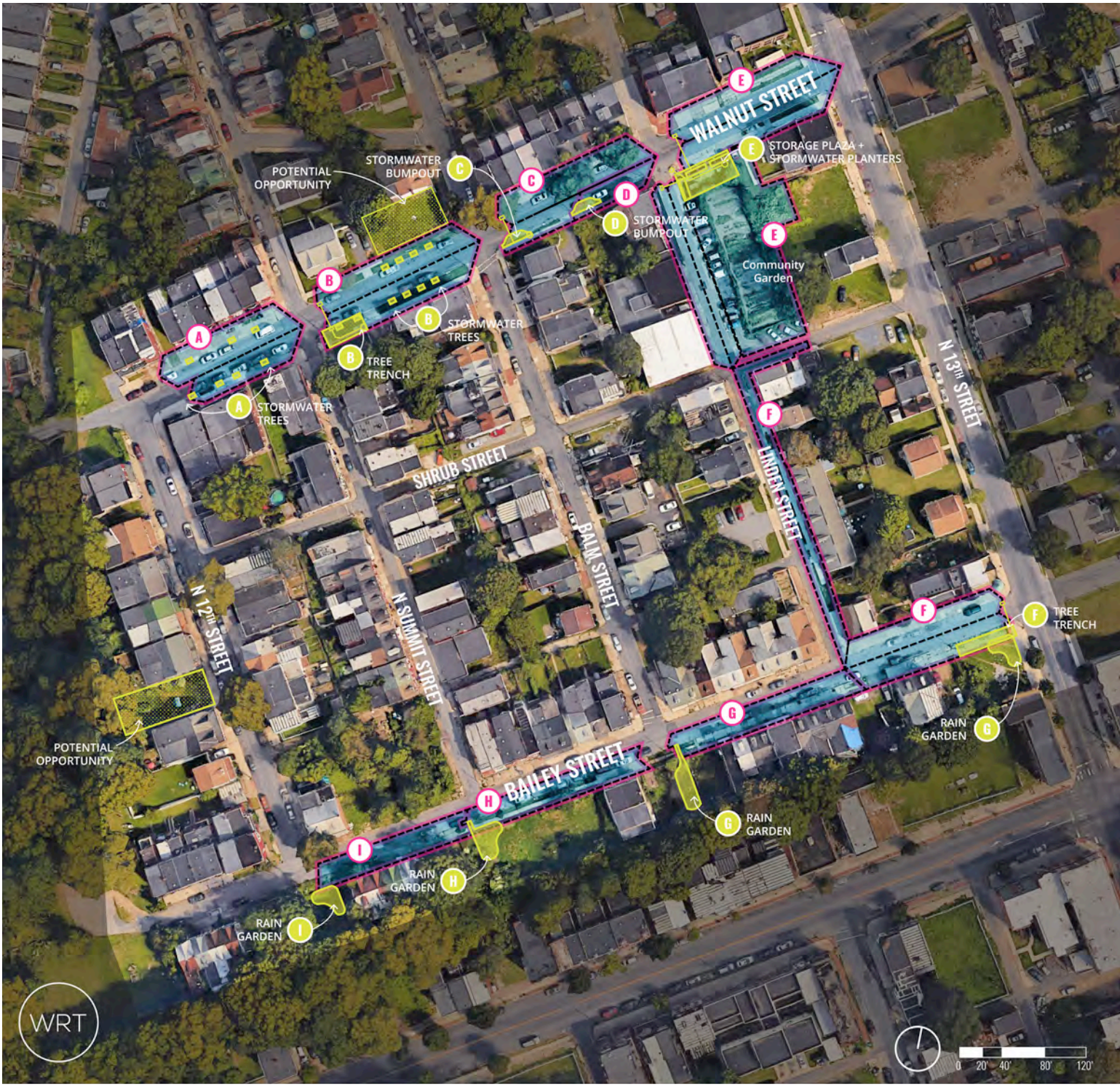
The systems along Walnut Street are primarily within the right-of-way and demonstrate a range of surface and subsurface practices that provide streetscape enhancement and maximize capture. GSI in this area includes a stormwater plaza with planters, bumpouts, a tree trench, and stormwater trees. The systems along Bailey Street are less intensive systems that manage runoff at the surface in vacant lots while providing pocket gardens and park spaces along the corridor. In addition to four rain gardens that capture street runoff, a tree trench with subsurface storage is proposed adjacent to one of the rain gardens to manage runoff from a larger drainage area. Additional street trees are proposed along both corridors wherever feasible to absorb some stormwater and reduce urban heat island effect, improve air quality, and enhance the streetscape.

## WALNUT STREET STORMWATER PLAZA WITH PLANTERS AT LINDEN STREET

A stormwater plaza at the southeast corner of Walnut Street and Linden Street will provide an attractive gathering space adjacent to the neighborhood's community garden. The plaza area, which is currently used as parking, will be surfaced with permeable concrete pavers and will include three planters and a subsurface storage area. The two planters on Walnut Street will intercept runoff from the south side of Walnut Street from Linden to 13th Street. The planter on Linden Street will intercept runoff from the east side of Linden Street from Shrub Street to Walnut Street. The planters will provide surface and soil storage for stormwater and will be constructed over a larger stone infiltration/storage trench that will provide additional storage.

TYPES OF GSI





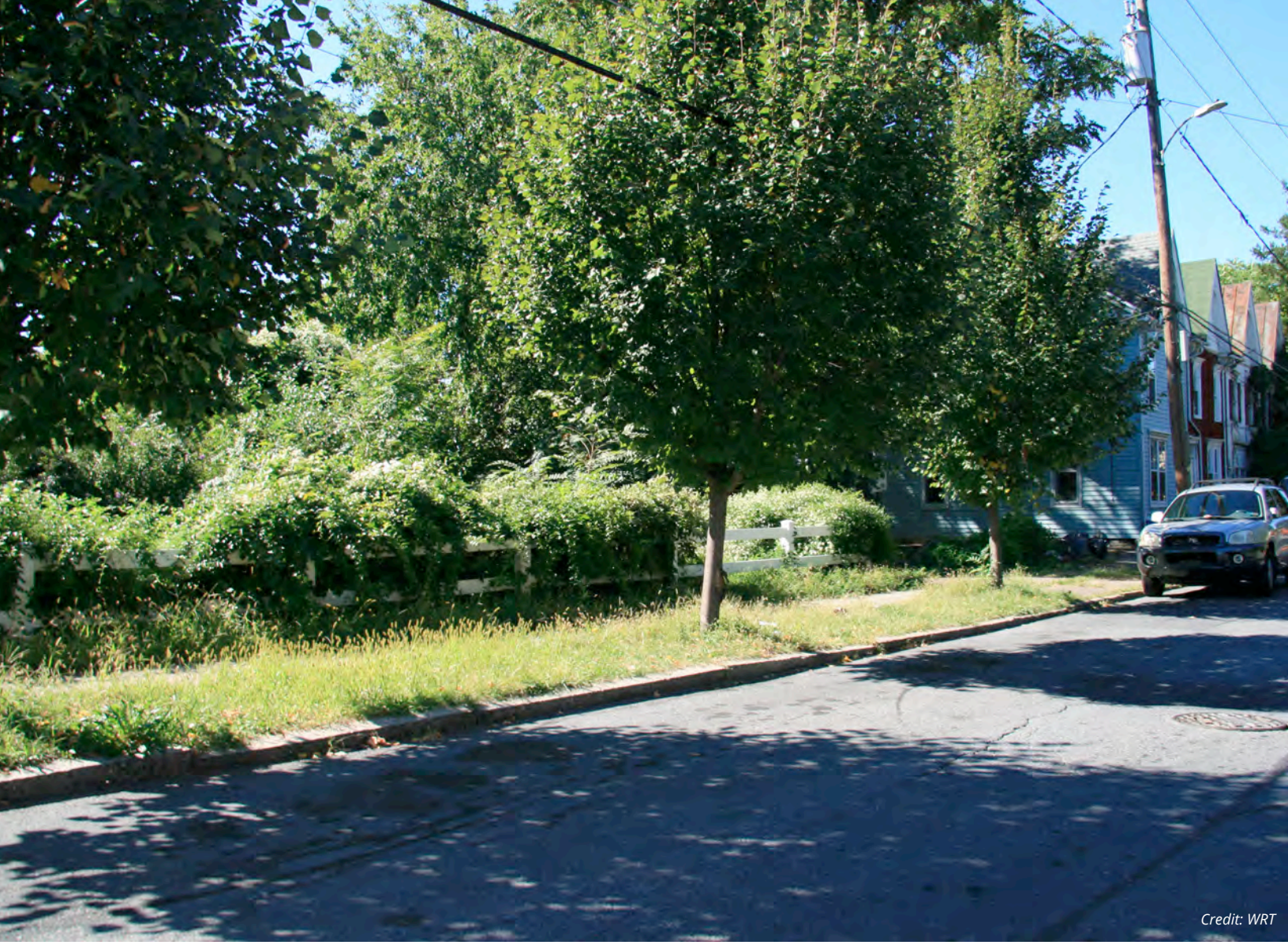

## A SERIES OF RAIN GARDENS CREATES SMALL NEIGHBORHOOD GATHERING SPACES

*Rain gardens on vacant lots on Bailey Street create small neighborhood gathering spaces.*

LEGEND

Groups of Drainage Areas (impervious areas) managed by a GSI system

Green Stormwater Infrastructure (GSI) system (i.e., tree trenches, planters, etc.)



Credit: WRT

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## SUMMIT TERRACE COMMUNITY LOT

*Vacant lots along Bailey Street, including the Summit Terrace Community Lot, will be used to manage stormwater from the street right-of-way. Cleaning up these lots and creating rain gardens will provide the community with additional gathering and recreational space.*

## WALNUT STREET BUMPOUTS

Two stormwater bumpouts along the south side of Walnut Street between Balm and Linden will capture and provide surface, soil and stone storage for runoff from the south side of Walnut Street from Linden Street to Balm Street. A stone storage/ infiltration trench in the sidewalk will provide additional storage. Runoff from the north side of Walnut Street will be diverted directly into the trench via a new inlet on the north side of the street.

## WALNUT STREET TREE TRENCH

A stormwater tree trench on the south side of Walnut Street will provide subsurface storage for runoff from both sides of Walnut Street that will be diverted to the storage/infiltration trench via new inlets on either side of the street. The trench provides storage and infiltration or slow release of runoff. Street trees within the trench provide volume removal through evapotranspiration.

## WALNUT STREET STORMWATER TREES

Eight stormwater trees are proposed along the north and south sides of Walnut Street between 12th Street and N. Summit Street. The trees will manage the contributing drainage areas by diverting street runoff through curb openings and providing subsurface storage in the tree pits. Although stormwater trees do not achieve the target storage that most of the other systems provide, they are an alternative that provides some stormwater storage, runoff reduction through interception and evapotranspiration, and streetscape enhancement where utility and other constraints preclude implementation of larger systems.

< THE PROJECT WILL MANAGE 3,630 – 61,170 SF OF IMPERVIOUS SURFACES AND IS ESTIMATED TO COST A TOTAL OF $10,300 – $441,100.

THIS IS EQUAL TO MANAGING 53,942 GALLONS OF STORMWATER.

## BAILEY STREET RAIN GARDENS

A rain garden on the south side of Bailey Street in a vacant lot between 12th Street and N Summit Street will manage stormwater from the south side of the street through a curb opening directly into the rain garden. A second rain garden will be located south of Bailey Street in the community-owned space where N Summit Street ends at Bailey Street. A trench drain will divert runoff from the south side of the street across the sidewalk and into the rain garden. A third rain garden will be located on the south side of Bailey Street in a vacant lot where Balm Street ends. Runoff from the south side of Bailey Street will be diverted into the rain garden via a trench drain. Due to some topography and space constraints, additional investigation will need to be completed to determine whether a rain garden of this shape is feasible. The fourth rain garden will be located at the southwest corner of the intersection of Bailey Street and 13th Street. A trench drain will divert runoff from the south side of Bailey Street across the sidewalk and into the rain garden. A tree trench adjacent to the rain garden and stone beneath the rain garden will provide additional storage for runoff. A new inlet will be installed on the north west corner of the intersection of Bailey Street and 13th Street to capture runoff from the high point of Shrub Street between 13th and Linden Streets flowing towards Linden Street, Linden Street between Shrub Street and Bailey Street, and the north side of Bailey Street between Linden Street and 13th Street. The new inlet will connect directly to a subsurface tree trench. One tree is added in the tree trench system and a new sidewalk is proposed for the area as the existing sidewalk is in disrepair. Additionally, four street trees are proposed along the north and south side of Bailey Street.