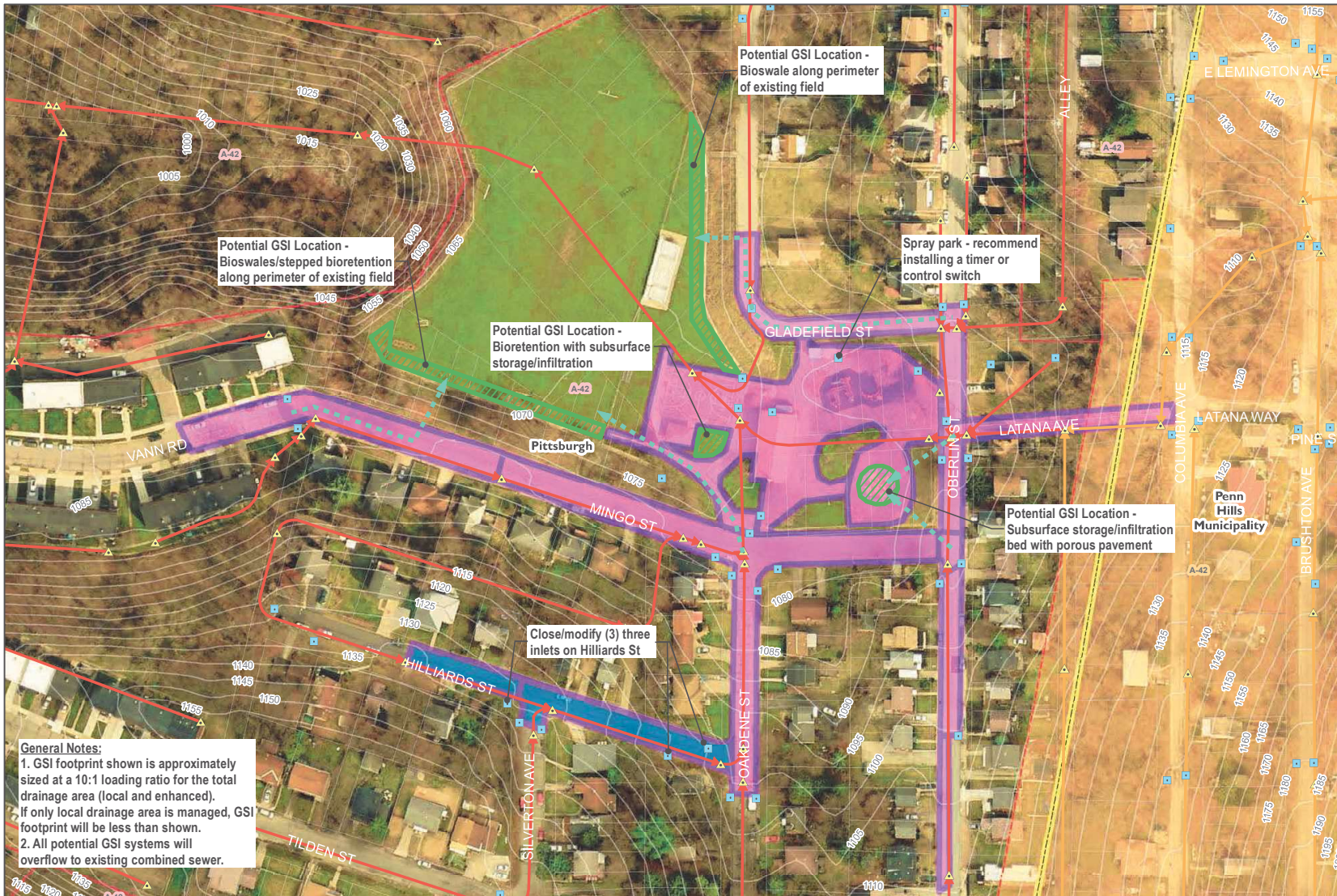


**Upper Allegheny
GSI CONCEPT PLAN**

UA-03: Chadwick Playground
City of Pittsburgh/ POC A-42



General Notes:
1. GSI footprint shown is approximately sized at a 10:1 loading ratio for the total drainage area (local and enhanced).
If only local drainage area is managed, GSI footprint will be less than shown.
2. All potential GSI systems will overflow to existing combined sewer.

- Existing Inlets
- ▲ Sewer Structures
- ➡ Proposed Separate Storm Sewer
- Sewer Pipes**
- ➡ Combined
- ➡ Sanitary
- ➡ Stormwater
- ➡ Other Sewer Type
- ▭ Parcels
- ▭ Municipal Boundary
- ▭ GSI Footprint
- ▭ Impervious Drainage Area (Local)
- ▭ Impervious Drainage Area (Enhanced)*
- ▭ Surface Water
- ▭ Combined Sewer Area
- ▭ Runoff To Combined Area
- ▭ Separate Sewer Area
- ▭ Non-contributing Area (NCA)

*Enhanced drainage areas show potential additional capture that can be conveyed to proposed GSI footprints via the installation of new separate storm sewers which often result in significant increases in cost-efficient runoff capture.

Data Sources:
ALCOSAN: Sewer Structures, Sewer Pipes, Subcatchments
Allegheny County: Parcel Data, Contours
JACOBS: Existing Inlets

Chadwick Playground (located between Mingo St and Gladefield St) is a prime candidate to integrate green stormwater infrastructure (GSI). Adjacent roadway runoff from Latana Ave, Oberlin St, Mingo St, Oakdene St, and Gladefield St could be directed to the site via new separate storm sewers and managed with bioswales located on the eastern and southern perimeters of the existing football field. An additional subsurface storage/infiltration bed with optional permeable pavement could be located within the play area at the southeast corner of the park. It is recommended that a timer or control switch be installed at the existing spray park to minimize the amount of water entering the storm drains at the north of the site.

Project UA-03 (Parcel Owner: City of Pittsburgh)

	Impervious Area Captured (ac)	*Construction Cost for Stand-alone GSI	**Construction Cost for Integrated GSI	Relative Constraint Score	Runoff Capture (gal/yr)	Overflow Reduction Efficiency (ORE)	CSO Reduction (gal/yr)	**Cost Efficiency (\$/gal/yr overflow reduction)
Local GSI	2.56	\$790,000	\$550,000	—	2,100,000	TBD	TBD	TBD
Enhanced Drainage Area	0.25	\$60,000	\$40,000	—	210,000	TBD	TBD	TBD
Project Totals	2.81	\$850,000	\$590,000	6.0	2,310,000	TBD	TBD	TBD

*Costs are planning-level estimates with an expected accuracy range of -25% to +50%. **Integrating GSI with other planned site improvements is assumed to result in a 30% cost reduction. **Efficiency based on construction cost for stand-alone GSI

Note that limited sewer data information is available in GIS, so all existing sewer system information may not be shown on this map.

