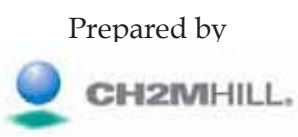


Onondaga
County,
New York
Save the Rain
Program
2010-2018 Green
Infrastructure
Plan

Onondaga County, New York Save the Rain Program 2010-2018 Green Infrastructure Plan



Prepared for
Onondaga County,
New York



Updated
January 2012



Prepared for
Onondaga County, New York



Updated January 2012



Onondaga County Save the Rain Program 2010 - 2018 Green Infrastructure (GI) Plan

TO: Tom Rhoads/OCWEP
FROM: Rita Fordiani/CH2M HILL
DATE: Updated January 27, 2012

Approximately 247 million gallons of CSO reduction through green infrastructure (GI) is required to meet the GI program goals by 2018 outlined in the Fourth Stipulation of the Amended Consent Judgment (ACJ) of 2009. Enclosed please find the 2010 - 2018 Green Infrastructure (GI) Plan which has been updated through January 2012. Each binder includes the following sections:

- 2010-2018 GI Plan
- 2010 GI Projects - completed
- 2011 GI Projects - completed and under construction
- 2012 GI Projects - planned

These sections are further described below.

2010– 2018 GI Plan

2010 - 2018 Green Infrastructure Program Summary

The first page is the *2010 - 2018 Green Infrastructure Program Summary* which summarizes planned CSO reduction through 2018 versus actual CSO reduction (currently through 2011) by program type. The *2010 - 2018 Green Infrastructure Program Summary* also identifies the types of properties and owners included in the GI Plan in addition to the following:

- Target CSO Reduction Volume required by 2018
- CSO Reduction Provided by Candidate Projects
- Additional CSO Reduction Volume Required from Identified Projects
- Additional CSO Reduction Volume Needed

These values are summarized below.

2018 Target CSO Volume Reduction (gallons/year)	Projects Completed (or Under Construction) CSO Volume Reduction (gallons/year)	Additional CSO Volume Reduction Anticipated from 2012-2018 Candidate Projects (gallons/year)	Total CSO Volume Reduction: Projects Completed and 2012-2018 Candidate Projects (gallons/year)	Additional CSO Volume Reduction Required by 2018 (gallons/year)
247,000,000	73,070,000	65,870,00	138,940,000	108,060,000

Property Ownership and Program Types

The first column in the 2010 - 2018 Green Infrastructure Program Summary separates the program elements into Public and Private property ownership. The second column divides the properties into Program Types:

Public	Private
Streets	Impervious Area Data
Parks and Open Space	Voluntary
Parking	Green Improvement Fund (GIF)
Public Facilities	Ordinance
Roofs	Impervious Area Based Rate Incentive
	Non-GIF Incentive

The Program Types are described below.

Program Code and Type	Program Type Definition
01 - Streets	Green streets use the existing form and construction of roadways to allow the public right-of-way and sometimes adjacent areas to manage runoff through tree trenches, enhanced street trees, porous pavement sidewalks, vegetated curb-extensions, sidewalk planters, etc. Initial projects are being focused on integrating GI design details as part of planned neighborhood streetscape improvements like the Connective Corridor. Sidewalk programs can reduce runoff volume from uphill adjacent areas with porous pavement materials and street tree plantings, or similar technologies. These projects are built most cost effectively when the pavements need replacement or the street/sidewalk requires reconstruction for other reasons.
02 - Parks and Open Space	Parks and open space areas provide opportunities to manage runoff from adjacent areas in natural park lands and can improve the overall setting. Clean runoff from parks can also enter the combined sewer system and take capacity that could be used to convey and treat additional combined sewage. This program targets the removal of these flows through park enhancements.
03 - Parking	Green parking lots are typically built by excavating the existing lot and installing a stone subsurface infiltration bed in conjunction with porous pavements or water quality inlets redirected into the stone bed. Runoff from adjacent areas like streets and sidewalks can be redirected into the infiltration bed and tree trenches or other vegetated elements can be integrated with the design to increase tree canopy, thereby promoting evapotranspiration. These projects are built most cost effectively when the pavements need replacement or the lot requires reconfiguration for other reasons.
04 - Public Facilities	Greening public facilities is a major opportunity to integrate green infrastructure with other capital programs such as the Syracuse City School District Reconstruction Program, the Onondaga County Public Library site improvement projects, County Facilities, and SUNY programs as examples.

Program Code and Type	Program Type Definition
05 - Roofs	A vegetated roof cover is a veneer of vegetation that is grown on and covers an otherwise conventional flat or pitched roof, providing hydrologic characteristics that more closely match surface vegetation than impervious rooftop. The overall thickness of the veneer typically ranges from 2 to 6 inches and may contain multiple layers, consisting of waterproofing, synthetic insulation, non-soil engineered growth media, fabrics, and synthetic components. Through the appropriate selection of materials, even thin vegetated covers can provide significant rainfall retention and detention functions.
06 - Impervious Area Data	Accounting for changes to impervious areas and establishing accurate model input parameters for the County Stormwater Management Model (SWMM) is necessary for documenting compliance. In some cases the actual areas contributing to each CSO are changing due to new and improved data sources such as Light Detection and Ranging Technology known as LIDAR data which has resulted in some changes to drainage areas. Monitoring data and improved calibration have already resulted in increased estimates of annual capture.
07 - Voluntary	Voluntary projects are built by land owners that incorporate green infrastructure on their own. Examples of these types of projects include green roofs, porous pavement driveways and parking lots, and residential and commercial disconnection to pervious areas, rain barrels, cisterns, or capture and reuse functions.
08 - Green Improvement Fund (GIF)	The Green Improvement Fund (GIF) is a County funding program to incentivize green infrastructure retrofits on private lands intended to divert storm water runoff that now goes into the combined sewer system. The program will continue to receive submittals on a rolling basis as funding allows.
09 - Ordinance	<p>A revised stormwater ordinance is a critical part of making progress with GI implementation on public lands and enables the CSO program to achieve two things:</p> <ol style="list-style-type: none"> 1. Ensure that new impervious cover does not negatively impact CSOs, and 2. Incrementally reduce the impact of existing impervious areas within the CSS that are reconstructed over time. <p>An effective stormwater ordinance has the added benefit of additional CSO reduction after 2018 as new projects continue to apply the ordinance requirements.</p>
10 - Impervious Area Based Rate Incentive	Other programs may arise to incentivize green infrastructure retrofits on private lands that are not presently or likely to redeveloped in the foreseeable future. Impervious area-based rate incentives provide incentives for private lands to retrofit green infrastructure by allocating the cost for CSO and wet weather water pollution control services on a cost of service basis. This is commonly done using impervious area as a surrogate for proportionate use of the existing collection and treatment system. This process provides a more equitable means for charging for the use of the City's drainage system by apportioning costs by each parcel, its specific development features and the actual use of the sewer system and treatment services. This process is being used by many Cities and is being evaluated as a mechanism to credit private land owners and businesses with long term cost savings when they retrofit and maintain green infrastructure controls on their property. For 2011, a peer community summary and comparison will be developed and a fact sheet describing potential models for Onondaga County.

Program Code and Type	Program Type Definition
11 - Non-GIF Incentive	Other non-GIF programs may arise to incentivize green infrastructure retrofits on private lands that are not presently or likely to be redeveloped in the foreseeable future. Through this process key partners have been identified that have the opportunity to increase implementation because these partners are significant land owners and have the ability to influence development and redevelopment. This program targets specific strategic projects to advance green infrastructure technology development and implementation.

Sources, Technologies, Strategies, and Owners

The 2010 - 2018 Green Infrastructure Program Summary also provides general information on anticipated impervious sources, potential GI technologies to be applied for those impervious sources, potential implementation strategies, and anticipated property owners. This information by Project Type is useful for grouping GI projects and developing implementation strategies for similar property owners and technologies.

2010 – 2018 Project List

Project Identifier (PI)

Immediately following the Green Infrastructure Program Summary is the 2010 – 2018 Project List sorted by the Project Identifier (ID). Project ID definitions and/or sewersheds identified include the following:

Project Identifier (ID)	Definition/Sewershed
C	Clinton
CW	Creekwalk – spans multiple sewersheds
E	Erie (part of Clinton sewershed)
F	Franklin (part of Clinton sewershed)
H	Harbor Brook
HW	Hiawatha
IH	Inner Harbor – direct discharge to Onondaga Lake
M	Midland (part of Clinton sewershed)
ZZ	Other

CH2M HILL's Role

The columns to the left of the Project Identifier (ID) note CH2M HILL's role on each project and the project status. CH2M HILL's role varies as follows:

- **Lead** – CH2M HILL leads the project development through bid services
- **Assist and Track** – CH2M HILL may provide input to projects developed by others
- **Track Only** – projects are developed by others but included in the GI program database

Project Status

Project Status is defined by the following hierarchy:

- **1-Constructed** – project completed
- **2-Under Construction** – in bid phase or under construction
- **3-Design** – field work completed; design initiated
- **4-Field Work/ES** – field work/environmental survey initiated (includes survey, soil infiltration testing, and environmental survey/Phase 1 environmental assessment/soil or groundwater sampling as needed)
- **5-Concept** – Project metrics calculated: CSO volume reduction, rough conceptual cost, and estimated \$/gallon CSO removed. If project metrics are favorable, the property owner is contacted for GI implementation approval. Letters are sent out for return signature from the property owner for site access. Upon receipt of signed property owner approval letters, field work is initiated.
- **6-Idea** – These opportunities represent a collection of ideas submitted from various individuals, groups, etc. The project metrics have not yet been calculated.
- **7-Inactive** – This list represents opportunities that have failed to move forward. Reasons may include lack of property owner approval, unfavorable project metrics, poor field conditions, etc. This list is being kept in case of any future changes that may remove a barrier and allow the opportunity to be resurrected for future consideration.

Project Information and Metrics

The columns to the right of the Project ID provide the following:

- Project name, address and parcel owner
- Actual or anticipated construction year
- Project metrics (CSO volume reduction, cost, and \$/gallon reduced). Costs are updated as updates become available. Costs are initially based on conceptual or design phase cost estimates. Highlighted costs reflect as-built construction costs.

2010 - 2018 Project List by Project Type

Immediately following the **2010 - 2018 Project List** is the same project information but separated out by program type.

2010 GI Projects

The **2010 Project List** summarizes the projects that were either completed or substantially constructed by program year 2010. Some projects from 2008-2009 are also included as these were used as GI project examples during the ACJ negotiations in 2009. Following approval of the ACJ, these projects were considered part of the GI program database accounting which formally commenced in 2010. The **2010 Project List** is sorted by Project ID. A location map of the **2010 Project List** and any available project fact sheets are also included.

2011 GI Projects

The **2011 Project List** summarizes the projects that were either completed or substantially constructed in program year 2011. The **2011 Project List** is sorted first by Project Status and then by Project ID. A location map of the **2011 Project List** and any available project fact sheets are also included.

2012 GI Projects

The **2012 Projects List** summarizes the opportunities for construction in 2012. These opportunities are in various stages of progress towards implementation from Idea to Design. The **2012 Project List** is sorted first by Project Status and then by Project ID. A location map of the **2012 Project List** and any available project information are also included.

2013 - 2018 GI Projects

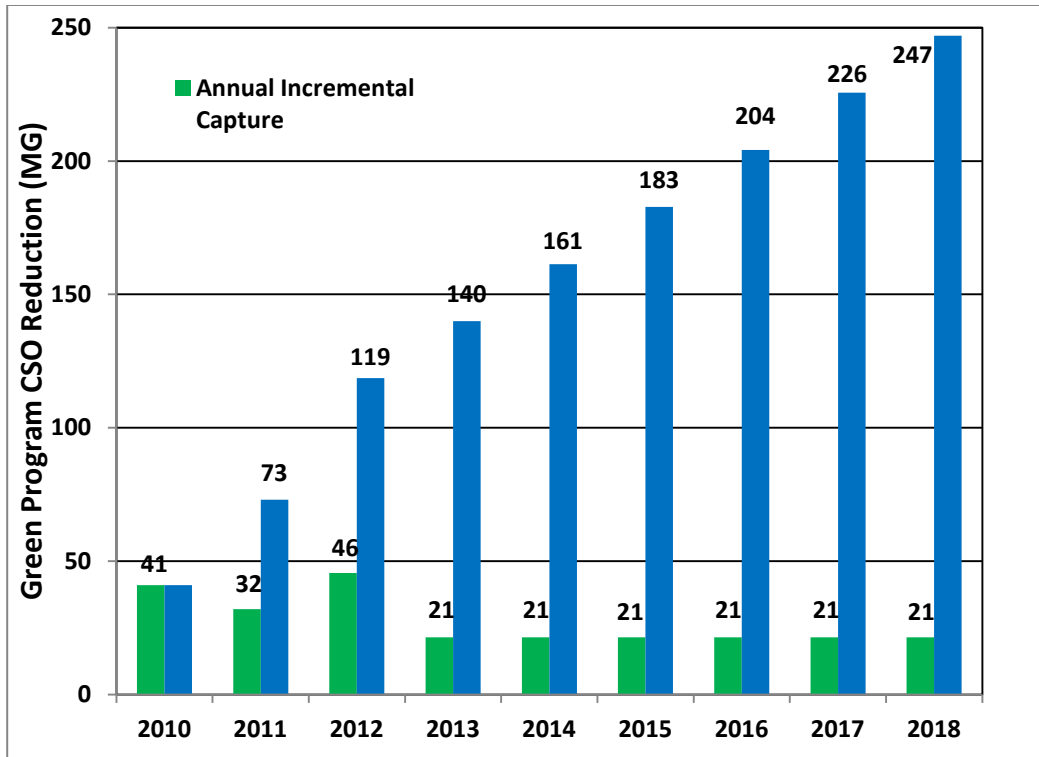
The **2013 - 2018 Projects List** summarizes potential future opportunities which will be investigated further during plan year 2012. The **2013 - 2018 Project List** is sorted first by Project Status and then by Project ID. A location map of the **2013 - 2018 Project List** and any available project information are also included.

Inactive GI Projects

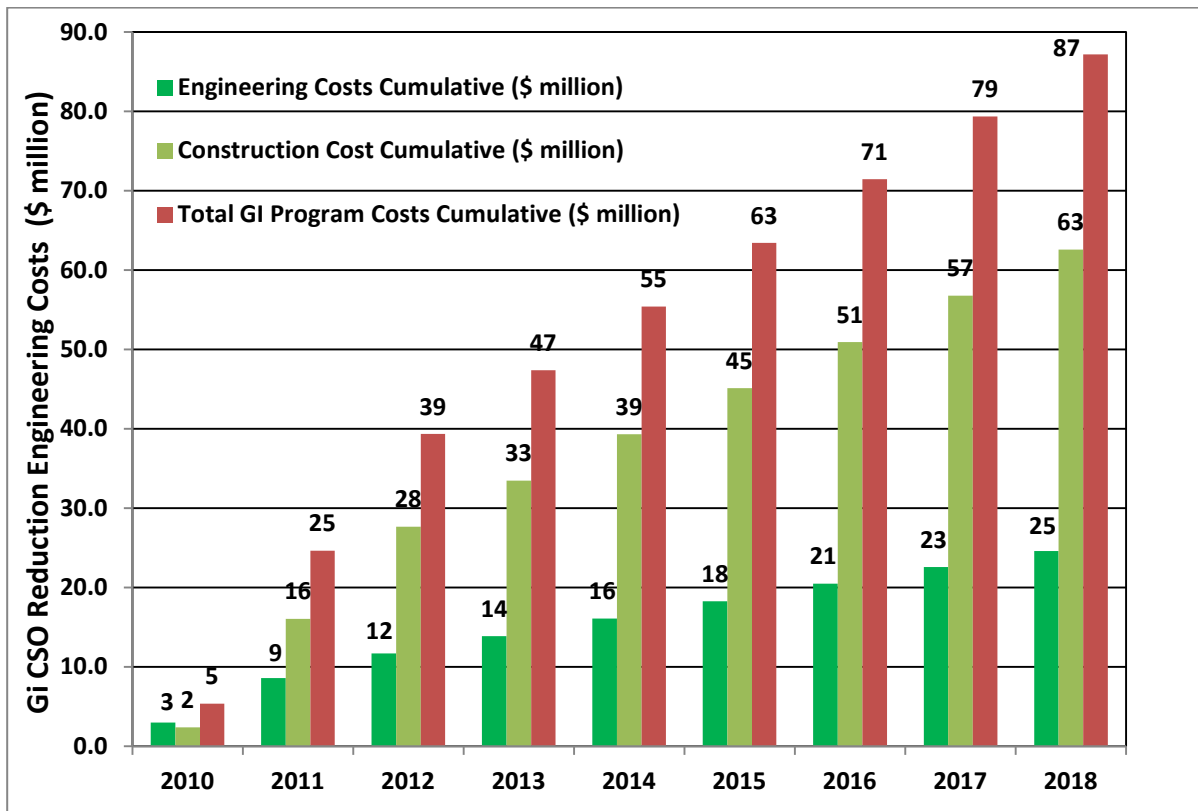
The **Inactive Project List** represents opportunities that have failed to move forward. Reasons may include lack of property owner approval, unfavorable project metrics, poor field conditions, etc. This list is being kept in case of any future changes that may remove a barrier and allow the opportunity to be resurrected for future consideration. The **Inactive Project List** is sorted by Project ID.

Program to Date Summary

The following graphic summarizes the GI annual and cumulative CSO volume reduction currently estimated for the program. 2011 was known as “Project 50;” however, approximately 80 were either constructed or were substantially under construction. There are currently over 130 opportunities on the **2012 Project List** totaling approximately 46 million gallons per year of CSO volume reduction. A lengthy list of opportunities provides a level of contingency as it is anticipated that some of these opportunities may be delayed to future years or moved to inactive status. Some projects from the **2013 - 2018 Project List** may move up to 2012 as well.



Summarizing the costs associated with the projects constructed (or currently under construction) through program year 2011 is shown below.



INSERT TAB FOR 2010-2018 GI
PLAN HERE

Onondaga County Department of Water Environment Protection
Green Infrastructure Program Summary

Where		What	How	Who	How Much		Progress to Date	Where are We Going?			
	Program Type Roll-up	Area / Impervious Source	Primary Green Infrastructure Technology	Implementation Strategy	Owner	2018 Target CSO Reduction Volume (gallons/year)	Target CSO Volume Reduction (% of Total)	Projects Completed or Under Construction (gallons/year)	Additional CSO Volume Reduction Anticipated from 2012 - 2018 Candidate Projects (gallons/year)	Total CSO Volume Reduction: Projects Completed or Under Construction and 2012 - 2018 Candidate Projects (gallons/year)	Additional CSO Volume Reduction Required by 2018 (gallons/year)
Public	01-Streets	Residential/Commercial Roads/Boulevards	Green Streets	Road and Utility Improvement/Redevelopment	City DPW	89,940,000	36%	11,702,820	25,539,730	37,242,550	52,697,450
				Greening the Grey	OCWEP						
		Highways	Dry Well/Infiltration Trenches	Coordination with NYS DOT	NYS DOT / City / OCWEP						
		Median/Traffic Islands	Bioretention	Road and Utility Improvement/Redevelopment	City DPW						
		Sidewalks	Porous Pavement	Sidewalk Reconstruction with new detail	City DPW						
		Streets/ROW (Ad Hoc)	Enhanced Street Trees	Road and Utility Improvement/Redevelopment	Parks						
				Enhanced Tree Planting Program	Parks						
	02-Parks & Open Space	Parks (including adjacent	Disconnection into Park	Develop Park Green Plan	Parks	13,992,000	6%	3,585,000	19,942,000	23,527,000	-9,535,000
		Stream Inflow Removal	Use natural area & drainage to detain/remove inflow	Delineate Drainage Area, monitor & update model (e.g. Thorden Park; Colvin St. / Oakwood Cementary)	Parks						
		Stormwater Areas (e.g. EBSS)	Constructed Wetland	Feasibility Studies	OCWEP						
		Vacant Lots	Urban Forestry/Gardens	Vacant Land Strategy	Parks						
	03-Parking	Parking - Public	Porous Pavement	City/County	City/County	12,184,000	5%	6,868,000	6,229,130	13,097,130	-913,130
	04-Public Facilities	Public Schools	Various	School District, Reconstruction program	SCSD	14,003,000	6%	6,500,700	6,051,630	12,552,330	1,450,670
				Partner Programs	ESF, Other						
		County Facilities	Various	Facility Improvement Program	Facilities / OnCenter						
				Libraries	Facilities / OCPL						
	05-Roofs	Flat Roofs	Green Roof	County Facilities / OnCenter	Facilities	3,201,000	1%	915,000	1,726,800	2,641,800	559,200
Private	06-Impervious Area Data	Residential Roofs/Driveways	Disconnection	Model Calibration to measured DCIA / Flow	CH2M HILL	29,800,000	12%	29,800,000	0	29,800,000	0
	07-Voluntary	Flat Roofs	Green Roof - Private	Track	Various	11,372,000	5%	2,979,000	2,754,000	5,733,000	5,639,000
		Parking Lots	Porous Pavement - Private								
		Residential	Downspout Discon w/ Cistern or Rain								
		Commercial/Industrial	All								
	08-Green Improvement Fund (GIF)	All	All	Review / Administer / Track Awards	OCWEP	11,372,000	5%	7,053,000	3,066,000	10,119,000	1,253,000
	09-Ordinance	All	All	Revise ordinance for redevelopment to manage 1 inch of rainfall. Develop checklists/procedures & track	City / OCWEP	46,257,000	19%	3,333,000	0	3,333,000	42,924,000
	10-Impervious Area Based Rate Incentive	Commercial/Industrial	All	Allocate ACJ funding requirements by impervious area to incentivize retrofit	OCWEP	3,452,000	1%	0	0	0	3,452,000
		Residential									
11-Non GIF Incentive	Commercial/Industrial	All	Track	Various	11,372,000	5%	332,000	560,000	892,000	10,480,000	
	Residential										
Total CSO Reduction (gal)						247,000,000	100%	73,070,000	65,870,000	138,940,000	108,060,000



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2008-2018 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M LEAD	1-CONSTRUCTED	C-01	City Parking Lot #21	Southwest corner of W. Washington and Clinton Streets	2010	Syracuse Urban Renewal Agen	328,000	\$188,046	\$0.57
2	CH2M LEAD	1-CONSTRUCTED	C-09	County Parking Lot B at S. Townsend Street	431 Harrison St & Townsend Street	2010	County of Onondaga	692,000	\$342,000	\$0.49
3	TRACK ONLY	1-CONSTRUCTED	C-117	Tree Plantings in Court Woodlawn	Grant Blvd and Woodlawn Terrace	2011	Private	84,000	\$0	\$0.00
4	CH2M LEAD	1-CONSTRUCTED	C-12a	Townsend St Median Revegetation Phase 1	S Townsend St, from E Adams St to E Genessee St	2011	City of Syracuse	225,000	\$86,000	\$0.38
5	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-12b	Townsend St Median Revegetation Phase 2	E. Adams St to E. Taylor St	2011	City of Syracuse	38,000	\$43,029	\$1.14
6	TRACK ONLY	1-CONSTRUCTED	C-134b	Tree Planting at Union & Demong Parks	Union Pl, Kirkpatrick St, N Salina St	2011	City of Syracuse	34,000	\$0	\$0.00
7	TRACK ONLY	1-CONSTRUCTED	C-137b	Tree Planting at Schiller Park	112 Whitwell Dr	2011	City of Syracuse	114,000	\$0	\$0.00
8	TRACK ONLY	1-CONSTRUCTED	C-146	Havens Parking Lot at SU	E Adams St and Comstock Ave	2011	Syracuse University		\$0	
9	TRACK ONLY	1-CONSTRUCTED	C-147	Waverly Parking Lot at SU	805 South Crouse Avenue	2011	Syracuse University		\$0	
10	TRACK ONLY	1-CONSTRUCTED	C-19	Urban Garden #1	301 to 311 S. Warren Street	2009	Private	305,000	\$0	\$0.00
11	TRACK ONLY	1-CONSTRUCTED	C-20	Green Roof at Center of Excellence	727 E. Washington Street	2010	Syracuse University	212,000	\$0	\$0.00
12	TRACK ONLY	1-CONSTRUCTED	C-21	GIF#004 Jefferson Clinton Commons	500 S. Clinton St	2010	Private	212,000	\$100,000	\$0.47
13	TRACK ONLY	1-CONSTRUCTED	C-22	Flexipave at Home Headquarters #1	N/A	2008	Private	29,000	\$0	\$0.00
14	TRACK ONLY	1-CONSTRUCTED	C-23	Flexipave at Home Headquarters #2	NA	2008	Syracuse Housing Authority	5,000	\$0	\$0.00
15	TRACK ONLY	1-CONSTRUCTED	C-24	Flexipave at Catholic Charities	NA	2008	Private	1,000	\$0	\$0.00
16	TRACK ONLY	1-CONSTRUCTED	C-25	Flexipave at Museum of Science & Technology	NA	2008	Private	18,000	\$0	\$0.00
17	TRACK ONLY	1-CONSTRUCTED	C-26	Flexipave at SUNY Upstate Hospital Day Care	NA	2008	Syracuse University	44,000	\$0	\$0.00
18	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-29c	Forman Park	E Genesee and Almond Streets	2011	City of Syracuse	86,000	\$50,000	\$0.58
19	TRACK ONLY	1-CONSTRUCTED	C-31	GIF#010 Near Westside Iniative Lincoln Supply	109 Otisco St	2010	Private	338,000	\$78,000	\$0.23
20	CH2M LEAD	1-CONSTRUCTED	C-34	Green Roof at OnCenter	800 S. State Street	2011	County of Onondaga	825,000	\$1,038,000	\$1.26
21	CH2M LEAD	1-CONSTRUCTED	C-38	County Parking Lot: OnCenter	801 - 813 S. State Street; 422 - 434 Harrison St	2011	County of Onondaga	1,676,000	\$812,000	\$0.48
22	TRACK ONLY	1-CONSTRUCTED	C-41	Private Parking Lot at Islamic Society of NY	925 Comstock Ave	2008	Private	28,000	\$0	\$0.00
23	TRACK ONLY	1-CONSTRUCTED	C-51	GIF#001 The Spa at 500 W. Onondaga	500 W. Onondaga St	2010	Private	107,000	\$60,000	\$0.56
24	TRACK ONLY	1-CONSTRUCTED	C-52	GIF#006 Green Roof at King & King Architects	358 W. Jefferson St.	2010	Private	140,000	\$100,000	\$0.71
25	CH2M LEAD	1-CONSTRUCTED	C-54d	Downtown Streetscape Grant Projects @ Montgomery St	300 block Montgomery	2011	City of Syracuse	119,000	\$96,600	\$0.81
26	TRACK ONLY	1-CONSTRUCTED	C-56	GIF#012 The Galleries Office Towers	147 E. Onondaga St.	2010	Private	250,000	\$68,680	\$0.27
27	TRACK ONLY	1-CONSTRUCTED	C-57	GIF#013 The Monroe Building	333 E. Onondaga St.	2010	Private	65,000	\$99,311	\$1.52
28	TRACK ONLY	1-CONSTRUCTED	C-58	GIF#007 Hotel Skyler	609 S. Crouse Ave.	2010	Private	123,000	\$100,000	\$0.81
29	TRACK ONLY	1-CONSTRUCTED	C-59	GIF#015 Near West Side Iniatiive: Artist Studio	109-115 Otisco & Wyoming St	2010	Private	91,000	\$22,796	\$0.25
30	TRACK ONLY	1-CONSTRUCTED	C-70	GIF#020 St Lucy's Church	316 - 318 - 320 Seymour Street	2011	Private	246,000	\$125,000	\$0.50
31	CH2M LEAD	1-CONSTRUCTED	C-92	GIF#040 Courts4Kids: Skiddy Park Porous Basketball Courts	Tully St between Oswego and Tioga	2011	City of Syracuse	244,000	\$162,075	\$0.66
32	TRACK ONLY	1-CONSTRUCTED	C-93	Seymour School Rain Garden	108 Shonnard Street	2010	Syracuse City School District	7,000	\$0	\$0.00
33	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-01	Creekwalk: Jefferson to Walton Streets	Creekwalk: Jefferson to Walton Streets	2010	City of Syracuse	96,000	\$63,311	\$0.66
34	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-02	Creekwalk: Walton to E. Fayette Streets	Creekwalk: Walton to E. Fayette Streets	2010	City of Syracuse	85,000	\$47,000	\$0.56
35	TRACK ONLY	1-CONSTRUCTED	E-01	Flexipave at Ross Brothers Office Building	NA	2008	Private	6,000	\$0	\$0.00
36	TRACK ONLY	1-CONSTRUCTED	E-02	Flexipave at Forest View Retiremt Development	NA	2008	Private	21,000	\$0	\$0.00

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
37	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-03	St. Joseph's Hospital Campus Exp and Redvt	301 Prospect Ave	2010	Private	234,000	\$0	\$0.00
38	CH2M LEAD	1-CONSTRUCTED	E-06	City Parking Lot #3	101 Oswego Blvd	2010	Syracuse Urban Renewal Agen	481,000	\$239,102	\$0.50
39	CH2M LEAD	1-CONSTRUCTED	E-10	Road Recon. Project No. 3: Concord Place	Concord Place from Westcott St. to Allen St.	2011	City of Syracuse	481,000	\$78,970	\$0.16
40	TRACK ONLY	1-CONSTRUCTED	E-29	SU Rain Garden: Waverly & Crouse	801 - 841 S. Crouse Ave.	2008	Syracuse University	37,000	\$0	\$0.00
41	TRACK ONLY	1-CONSTRUCTED	E-34	Rain Garden at Henniger High School	600 Robinson St	2010	Syracuse City School District	13,000	\$0	\$0.00
42	TRACK ONLY	1-CONSTRUCTED	E-35	SU University Ave. Parking Garage Retention System	1101 E. Adams Street and University Ave	2008	Syracuse University	585,000	\$0	\$0.00
43	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-42	County Board of Election Building	1000 Erie Blvd W & Liberty St	2011	County of Onondaga	0	\$0	\$0.00
44	CH2M LEAD	1-CONSTRUCTED	F-01	City Parking Lot at Pearl Street	400 block of Pearl Street	2010	New York State DOT	913,000	\$396,772	\$0.43
45	TRACK ONLY	1-CONSTRUCTED	H-04	Flexipave at Private Residence #1	NA at W Marcellus St	2008	Private	8,000	\$0	\$0.00
46	TRACK ONLY	1-CONSTRUCTED	H-07	GIF#011 Vibrant Syracuse Spaces	196 S. Geddes St	2010	Private	125,000	\$153,618	\$1.23
47	CH2M LEAD	1-CONSTRUCTED	H-08	Road Recon. Project No. 8: Geddes Street	300-500 blocks S. Geddes St	2011	City of Syracuse	371,000	\$203,274	\$0.55
48	CH2M LEAD	1-CONSTRUCTED	H-10	Tree Planting in and around Burnet Park	Harbor Brook Sewershed	2010	City of Syracuse	58,000	\$11,480	\$0.20
49	CH2M LEAD	1-CONSTRUCTED	H-16	Porous concrete sidewalk on Grand Ave	100 Grand Ave	2010	City of Syracuse	7,000	\$7,800	\$1.10
50	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-19	Rosamond Gifford Zoo: Elephant Exhibit	One Conservation Place	2011	County of Onondaga	275,000	\$183,000	\$0.67
51	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-20	Rosamond Gifford Zoo: Primate Exhibit	One Conservation Place	2010	County of Onondaga	613,000	\$25,000	
52	TRACK ONLY	1-CONSTRUCTED	HW-01	DPW Pavement Reduction #1: 100-300 Blocks Burdick Ave	Burdick Ave from Court Street to Murray Ave	2008	City of Syracuse	43,000	\$0	\$0.00
53	TRACK ONLY	1-CONSTRUCTED	IH-01	Infiltration Trench #1	Spencer Street between Liberty Street and Hiawatha Blvd.	2009	City of Syracuse			
54	TRACK ONLY	1-CONSTRUCTED	IH-02	Private Parking Lot at Liberty Green	531 Liberty Street	2009	Private	0	\$0	\$0.00
55	TRACK ONLY	1-CONSTRUCTED	IH-04	Rain Garden at Syracuse Harbor	Van Rensselear St	2011	New York State	0	\$0	\$0.00
56	TRACK ONLY	1-CONSTRUCTED	M-01	Green Roof at SUNY ESF Walters Hall	Walters Hall, 1 Forestry Drive	2008	SUNY ESF	84,000	\$0	\$0.00
57	TRACK ONLY	1-CONSTRUCTED	M-02	Green Church: Church of Latter Day Saints	801 E Colvin St	2008	Private	323,000	\$0	\$0.00
58	TRACK ONLY	1-CONSTRUCTED	M-03	Stormwater Detention Basin at Dunk and Bright	2648 South Salina St	2008	Private	2,748,000	\$0	\$0.00
59	TRACK ONLY	1-CONSTRUCTED	M-13	Flexipave at SUNY ESF Illick Hall	1 Forestry Drive	2008	SUNY ESF	700	\$0	\$0.00
60	TRACK ONLY	1-CONSTRUCTED	M-14	Flexipave at SUNY ESF Moon Library	1 Forestry Drive	2008	SUNY ESF	6,000	\$0	\$0.00
61	TRACK ONLY	1-CONSTRUCTED	M-15	SUNY ESF Parking Project	1 Forestry Drive	2008	SUNY ESF	179,000	\$0	\$0.00
62	TRACK ONLY	1-CONSTRUCTED	M-16	SUNY ESF Gateway Building	1 Forestry Drive	2010	SUNY ESF	314,000	\$0	\$0.00
63	TRACK ONLY	1-CONSTRUCTED	M-17	GIF#009 SUNY ESF Residence Hall (Centennial Hall)	1 Forestry Drive	2010	SUNY ESF	44,000	\$78,000	\$1.77
64	TRACK ONLY	1-CONSTRUCTED	M-20	GIF#008 Dunbar Association	1453 S. State St.	2010	Private	160,000	\$100,000	\$0.63
65	TRACK ONLY	1-CONSTRUCTED	M-21	SUNY ESF Illisk Hall Rain Garden	1 Forestry Drive	2010	SUNY ESF	325,000	\$0	\$0.00
66	TRACK ONLY	1-CONSTRUCTED	M-24	GIF#003 Syracuse Model Neighborhood Corp	S Salina and E Kennedy St	2011	Private	275,000	\$250,000	\$0.91
67	TRACK ONLY	1-CONSTRUCTED	M-39	Bellevue Academy Tree Plantings	S Geddes and Grant Ave	2011	Syracuse City School District	14,000	\$0	\$0.00
68	TRACK ONLY	1-CONSTRUCTED	M-44	Site Improvements at Bishop Foery Center	Edmund Ave	2011	Private			
69	TRACK ONLY	1-CONSTRUCTED	M-45	Rain Garden at Barnabas Center	1941 S Salina St	2011	Private			
70	TRACK ONLY	1-CONSTRUCTED	M-49	Stadium Parking Lot at SU	Stadium Place at E Raynor Ave	2011	Syracuse University		\$0	
71	TRACK ONLY	1-CONSTRUCTED	ZZ-01	Model Calibration to Measured Residential Roof/Drive Disconnection	NA	2008		29,800,000	\$0	
72	TRACK ONLY	1-CONSTRUCTED	ZZ-02a	Street Tree Planting Spring 2011	various locations	2011	NA	50,000	\$122,352	
73	TRACK ONLY	1-CONSTRUCTED	ZZ-02b	Street Tree Planting Fall 2011	various	2011	City of Syracuse	297,000	\$122,532	\$0.41
74	TRACK ONLY	1-CONSTRUCTED	ZZ-07a	Countywide Rain Barrel Program	n/a	2010	Private	647,000	\$19,040	\$0.03
75	TRACK ONLY	1-CONSTRUCTED	ZZ-07b	Countywide Rain Barrel Program	n/a	2011	Private	863,000	\$25,410	\$0.03

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
76	CH2M LEAD	2-UNDER CONSTRUCTION	C-07	Municipal Parking Garage: OnCenter	817 - 835 S. State Street and E. Adams Street	2011	County of Onondaga	907,000	\$246,985	\$0.27
77	CH2M LEAD	2-UNDER CONSTRUCTION	C-101	Green Park: Skiddy Park (Site)	Tully St between Oswego and Tioga	2011	City of Syracuse	638,000	\$244,000	\$0.72
78	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-103	GIF#039 Home HeadQuarters Marcellus	223 Marcellus St.	2011	Private	63,000	\$36,045	\$0.57
79	TRACK ONLY	2-UNDER CONSTRUCTION	C-105	GIF#041 CNY Philanthropy Center	431 E Fayette St	2011	Private	134,000	\$62,700	\$0.47
80	TRACK ONLY	2-UNDER CONSTRUCTION	C-108	GIF#044 American Beech	500 Westcott Street	2011	Private	76,000	\$53,050	\$0.70
81	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-109	GIF#45 Pemco Montgomery	217 Montgomery Street	2011	Private	606,000	\$288,000	\$0.47
82	CH2M LEAD	2-UNDER CONSTRUCTION	C-11	Commercial Green Streets: Harrison Street	Harrison Street, from Montgomery to State Streets	2011	City of Syracuse	128,000	\$109,920	\$0.86
83	TRACK ONLY	2-UNDER CONSTRUCTION	C-120	GIF#050 Plymouth Congregational Church	232 E. Onondaga St	2011	Private	129,000	\$73,700	\$0.57
84	TRACK ONLY	2-UNDER CONSTRUCTION	C-121	GIF#051 Park Central Presbyterian Church	509 E Fayette St	2011	Private	43,000	\$24,625	\$0.57
85	TRACK ONLY	2-UNDER CONSTRUCTION	C-122	GIF#052 St. Lucy's Parking Lot	432 Gifford Street	2011	Private	177,000	\$51,900	\$0.29
86	TRACK ONLY	2-UNDER CONSTRUCTION	C-123	GIF#053 St. Lucy's Dry Well	432 Gifford Street	2011	Private	90,000	\$17,700	\$0.20
87	TRACK ONLY	2-UNDER CONSTRUCTION	C-128	GIF#058 Loon Creek Properties	601 E. Genesee Street	2011	Private	272,000	\$124,350	\$0.46
88	TRACK ONLY	2-UNDER CONSTRUCTION	C-129	GIF#059 McMahon-Ryan Child Advocacy Center	601 E. Genesee Street	2011	Private	468,000	\$178,050	\$0.38
89	TRACK ONLY	2-UNDER CONSTRUCTION	C-139	GIF#060 Kopp Billing Agency	511 E Fayette St.	2011	Private	235,000	\$25,300	\$0.11
90	TRACK ONLY	2-UNDER CONSTRUCTION	C-140	GIF#061 The Spa at 500 Green Roof	500 W Onondaga St	2011	Private			
91	TRACK ONLY	2-UNDER CONSTRUCTION	C-141	GIF#062 Peace Incorporated	200 Wyoming Street	2011	Private	44,000	\$30,700	\$0.70
92	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29a	Connective Corridor Phase 1 - Contract 1 (University Ave)	University Ave, from E Genesee to Waverly St	2011	City of Syracuse	4,076,820	\$948,717	\$0.23
93	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29b	Connective Corr Phase 1 - Contract 2 (E. Genesee St)	E Genesee St from University Ave to Forman Ave	2011	City of Syracuse	1,771,000	\$442,750	\$0.25
94	CH2M LEAD	2-UNDER CONSTRUCTION	C-33	Cistern System at the War Memorial	200 Madison Street	2011	County of Onondaga	285,000	\$1,229,241	\$4.32
95	CH2M LEAD	2-UNDER CONSTRUCTION	C-42	Private Parking Garage: Atrium	S. Franklin St and W Washington St	2011	Private	27,000	\$15,000	\$0.56
96	TRACK ONLY	2-UNDER CONSTRUCTION	C-45	GIF#018 Putnam Properties	210 E. Fayette St.	2011	Private	58,000	\$75,757	\$1.32
97	CH2M LEAD	2-UNDER CONSTRUCTION	C-48	Green Roof at Erie Canal Museum and Visitor Center	318 Erie Blvd. East	2011	County of Onondaga	28,000	\$73,480	\$2.65
98	CH2M LEAD	2-UNDER CONSTRUCTION	C-54c	Downtown Streetscape Grant Project @ Water St	200 block E Water	2011	City of Syracuse	93,000	\$133,400	\$1.43
99	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-55	Green School: SCSD Institute of Technology	258 E. Adams St.	2011	Syracuse City School District	1,598,000	\$0	\$0.00
100	CH2M LEAD	2-UNDER CONSTRUCTION	C-61	Gateway Project at Water Street	300 Water Street	2011		656,000	\$920,088	\$1.40
101	CH2M LEAD	2-UNDER CONSTRUCTION	C-74a	Otisco Street Green Corridor - Phase 1	from Ontario St to Seneca St	2011	City of Syracuse	1,818,000	\$1,413,732	\$0.78
102	TRACK ONLY	2-UNDER CONSTRUCTION	C-75a	SUNY Upstate Cancer Center Green Roof	750 E Adams St	2011	Private	150,000	\$0	\$0.00
103	TRACK ONLY	2-UNDER CONSTRUCTION	C-75b	SUNY Upstate Cancer Center Rain Garden	750 E Adams St	2011	Private	23,000	\$0	\$0.00
104	TRACK ONLY	2-UNDER CONSTRUCTION	C-75c	SUNY Upstate Cancer Center Tree Planting	750 E Adams St	2011	Private	23,000	\$0	\$0.00
105	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-77	GIF#022 Alexander West Properties, LLC	327 Gifford Street	2011	Private	109,000	\$136,050	\$1.25
106	TRACK ONLY	2-UNDER CONSTRUCTION	C-78	GIF#024 CNY Regional Transportation Authority	624-662 South Warren Street	2011	Private	883,000	\$65,390	\$0.07
107	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-79	GIF#026 Central New York Jazz Arts Fndtn	441 E. Washington Street	2011	Private	38,000	\$52,188	\$1.39
108	CH2M LEAD	2-UNDER CONSTRUCTION	C-85	SCSD Central Offices	725 Harrison Street	2011	Syracuse City School District	1,446,000	\$403,500	\$0.28
109	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-91	SUNY Upstate: Institute of Human Performance Expansion	505 Irving Avenue	2011	Private	293,000	\$0	\$0.00
110	TRACK ONLY	2-UNDER CONSTRUCTION	C-96	GIF#034 Pike Block	S Salina & W Fayette St	2011	Private	391,000	\$186,143	\$0.48
111	TRACK ONLY	2-UNDER CONSTRUCTION	C-98a	Greening the Grey at Clinton Storage Facility	Street North to West Jefferson (Trolley Lot)	2011	County of Onondaga		\$0	\$0.00
112	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-99	Vacant Lot Project #2	701 Oswego Street	2011	City of Syracuse	184,000	\$85,214	\$0.46
113	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	E-12	Dr Edwin E Weeks Elementary School	710 Hawley Ave	2011	Syracuse City School District	1,546,000	\$89,000	\$0.06
114	CH2M LEAD	2-UNDER CONSTRUCTION	E-16	Sunnycrest Park Golf Parking Lot	Caleb Ave	2011	City of Syracuse Parks Depart	506,000	\$362,599	\$0.72

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
115	CH2M LEAD	2-UNDER CONSTRUCTION	E-31	Pocket Park at N. Clinton St. and W. Genesee St.	200-202 W. Genesee St.	2011	City of Syracuse	89,000	\$105,000	\$1.18
116	CH2M LEAD	2-UNDER CONSTRUCTION	E-36	Sunnycrest Arena Parking Lot	St. Anne Dr and Robinson St	2011	City of Syracuse Parks Depart	1,332,000	\$407,000	\$0.31
117	CH2M LEAD	2-UNDER CONSTRUCTION	E-39	East Water Street Pavement Removal	Interesection of S Beech and E Water at Erie Blvd.	2011	City of Syracuse	545,000	\$123,000	\$0.23
118	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-05	Green Roof at Hazard Branch Library	1620 West Genesee St	2011	City of Syracuse	62,000	\$67,275	\$1.08
119	CH2M LEAD	2-UNDER CONSTRUCTION	H-11	Avery Ave Greening at Pass Arboretum	Avery Ave and Tompkins St	2011	City of Syracuse Parks Depart	530,000	\$316,420	\$0.60
120	CH2M LEAD	2-UNDER CONSTRUCTION	H-13	Wilbur Avenue Zoo Entrance Enhancement	S Wilbur Ave and Coleridge Ave	2011	City of Syracuse	483,000	\$299,990	\$0.62
121	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-17	Rain Garden at Grand & Delaware	Grand Ave & Delaware St	2011	City of Syracuse	161,000	\$0	\$0.00
122	TRACK ONLY	2-UNDER CONSTRUCTION	H-24	GIF#031 ARC of Onondaga County	401 Lowell Ave.	2011	Private	212,000	\$95,053	\$0.45
123	TRACK ONLY	2-UNDER CONSTRUCTION	H-27	Greening the Grey at Harbor Brook Storage Facility	State Fair Blvd. and Rusin Ave (near Waite Ave)	2011	County of Onondaga	0	\$0	\$0.00
124	TRACK ONLY	2-UNDER CONSTRUCTION	M-19	GIF#005 Jubilee Homes of Syracuse	601 South Avenue	2010	Private	145,000	\$100,000	\$0.69
125	CH2M LEAD	2-UNDER CONSTRUCTION	M-23	Greening the Grey in Basin 044	400-700 W Castle Street	2011	TBD	652,000	\$82,050	\$0.13
126	TRACK ONLY	2-UNDER CONSTRUCTION	M-25	GIF#017 Create Public Art	713 E. Fayette St	2011	Private	64,000	\$94,611	\$1.48
127	CH2M LEAD	2-UNDER CONSTRUCTION	M-29	Hughes Magnet School Parking Lot	745 -55 Jamesville Ave	2011	Syracuse City School District	1,068,000	\$288,700	\$0.27
128	TRACK ONLY	2-UNDER CONSTRUCTION	M-35	GIF#030 The People's Community Development Corporation	2307-2315 S. Salina St	2011	Private	66,000	\$80,200	\$1.21
129	TRACK ONLY	2-UNDER CONSTRUCTION	M-36	GIF#033 Matawon Development Group	2221 South Salina Street	2011	Private	52,000	\$24,214	\$0.54
130	TRACK ONLY	2-UNDER CONSTRUCTION	M-37	Rooftop Disconnect in CSO 045	119 Crescent Ave	2011	Private	49,000	\$0	\$0.00
131	TRACK ONLY	2-UNDER CONSTRUCTION	M-41	GIF#049 Swallow's Tavern	1908 South Ave, 1912 South Ave	2011	Private	278,000	\$89,700	\$0.32
132	CH2M LEAD	3-DESIGN	C-100	Everson Garage / Plaza	788 S Townsend St	2012	County of Onondaga	929,000	\$185,800	\$0.20
133	TRACK ONLY	3-DESIGN	C-106	GIF#042 Center for Peace and Social Justice	2013 E. Genesee St	2012	Private	94,000	\$63,400	\$0.68
134	TRACK ONLY	3-DESIGN	C-118	GIF#047 Gemmi Boy	508-510 Westcott Street	2012	Private	34,000	\$26,837	\$0.79
135	TRACK ONLY	3-DESIGN	C-119	GIF#048 Mister Lady Bug	500-506 Westcott Street	2012	Private	100,000	\$57,950	\$0.59
136	TRACK ONLY	3-DESIGN	C-125	GIF#055 Bethany Baptist Church	149 Beattie Street	2012	Private	1,504,000	\$254,588	\$0.17
137	TRACK ONLY	3-DESIGN	C-144	Kennedy Square Redevelopment	E Fayette St and S Crouse	2013	Private			
138	CH2M ASSIST AND TRACK	3-DESIGN	C-29d	Connective Corridor Phase 2	E Genesee St, McBride St to S West St	2013	City of Syracuse	9,419,000		
139	CH2M ASSIST AND TRACK	3-DESIGN	C-29e	Connective Corridor Phase 3	S Salina St to Fayette St	2013	City of Syracuse	5,128,330		
140	CH2M LEAD	3-DESIGN	C-53	City Hall Forecourt	233 E. Washington Street	2012	City of Syracuse	404,000	\$376,000	\$0.93
141	CH2M LEAD	3-DESIGN	C-60	Green School: Seymour Academy Playground	108 Shonnard Street	2012	Syracuse City School District	381,000	\$265,000	\$2.06
142	CH2M LEAD	3-DESIGN	C-68	Street Trees along Marcellus Ave	Marcellus from S Geddes to Seneca	2012	City of Syracuse	28,000	\$7,000	\$0.25
143	CH2M LEAD	3-DESIGN	C-73	Onondaga Street Corridor/Gateway Project	From W Adams to South Ave	2012	City of Syracuse			
144	CH2M LEAD	3-DESIGN	C-86	Bank Alley Enhancement	Alley between E Washington and E Fayette St	2012	City of Syracuse	440,000	\$182,000	\$0.41
145	CH2M LEAD	3-DESIGN	C-88	Almond Street Pavement Removal	Between Madison and E. Genesee	2012	City of Syracuse	398,000	\$361,252	\$0.91
146	TRACK ONLY	3-DESIGN	C-95	SUNY Townsend Tower	507-523 E Adams Street	2012	Private			
147	TRACK ONLY	3-DESIGN	C-98b	Clinton Storage: MoST Roof Leaders	Street North to West Jefferson (Trolley Lot)	2012	County of Onondaga	963,000	\$0	\$0.00
148	CH2M ASSIST AND TRACK	3-DESIGN	E-08	Green Library: Petit Branch	105 Victoria Place	2012	City of Syracuse	134,000	\$105,000	\$0.78
149	CH2M LEAD	3-DESIGN	E-18	Traffic Triangle Project No. 1: Harvard Pl	Westmoreland and Harvard Place	2012	City of Syracuse	410,000	\$75,489	\$0.18
150	CH2M LEAD	3-DESIGN	E-43	Westcott Community Center	822-26 Euclid Ave and Westcott St	2012	City of Syracuse	108,630	\$15,070	\$0.14
151	CH2M ASSIST AND TRACK	3-DESIGN	F-02	Green Library: White Branch	763 Butternut St	2012	City of Syracuse	141,000	\$85,000	\$0.60
152	CH2M LEAD	3-DESIGN	F-04	City Parking Lot #4	Butternut and N State Sts	2012	New York State DOT	854,130	\$313,250	\$0.37
153	CH2M LEAD	3-DESIGN	F-04b	Green Street: N State St at City Lot 4	N State St bw Butternut and Ash	2012	City of Syracuse	849,000	\$111,876	\$0.13

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154	CH2M LEAD	3-DESIGN	F-07	Magnarelli Community Center Green Roof	2308 Grant Blvd	2012	City of Syracuse Parks Depart	127,800	\$188,416	\$1.47
155	CH2M ASSIST AND TRACK	3-DESIGN	H-05b	Green Library: Hazard Branch Site Improvements	1620 West Genesee St	2012	City of Syracuse	192,000	\$125,000	\$0.65
156	CH2M ASSIST AND TRACK	3-DESIGN	H-06	Green Library: Mundy Branch	1204 South Geddes St	2012	City of Syracuse	105,000	\$100,000	\$0.95
157	CH2M ASSIST AND TRACK	3-DESIGN	H-09	Green School: Playground at Delaware School	900 S Geddes St	2012	Syracuse City School District	126,000	\$76,230	\$0.60
158	CH2M LEAD	3-DESIGN	H-14	Harbor Brook CSO 018 Wetland Project	Velasko Rd & Grand Ave	2012	County of Onondaga	14,880,000	\$2,490,000	
159	TRACK ONLY	3-DESIGN	H-28	GIF#036 Dependable Paving: 945 Emerson	945 Emerson Ave	2012	Private	53,000	\$32,700	\$0.61
160	TRACK ONLY	3-DESIGN	H-29	GIF#037 Dependable Paving: 947 Emerson	947 Emerson Ave	2012	Private	54,000	\$33,975	\$0.63
161	CH2M ASSIST AND TRACK	3-DESIGN	M-10b	Green Library: Beauchamp Site Improvements	2111 S. Salina St	2012	City of Syracuse	160,000	\$85,000	\$0.53
162	CH2M LEAD	3-DESIGN	M-12a	US Post Office on Salina St: Green Roof	2200 S. Salina St	2012	United States Postal Service	161,000	\$236,331	\$1.47
163	TRACK ONLY	3-DESIGN	M-31	GIF#025 Salina Shoe Company Inc	2809 S. Salina Street	2012	Private	77,000	\$85,000	\$1.10
164	TRACK ONLY	3-DESIGN	M-40	GIF#046 People's AME Zion Church	2306 S. Salina	2012	Private	51,000	\$80,642	\$1.58
165	TRACK ONLY	3-DESIGN	M-42	Greening Vacant Lot near Beauchamp Library	tbd	2012	City of Syracuse			
166	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-03	Develop and Implement a Revised Stormwater Ordinance	NA	2012	NA			
167	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-04	Track Projects that Apply a Revised Stormwater Ordinance	NA	2012	NA			
168	CH2M LEAD	4-FIELD/ES	C-104	Civic Center Forecourt	E Onondaga St. and Montgomery St.	2012	City of Syracuse	107,000	\$88,000	\$0.83
169	CH2M LEAD	4-FIELD/ES	C-110	Seymour Academy Parking Lot	180 Shonnard St	2012	Syracuse City School District	290,000	\$112,590	\$0.39
170	CH2M LEAD	4-FIELD/ES	C-74b	Otisco Street Green Corridor Phase 2	From Oswego St to Wyoming St	2012	City of Syracuse	2,301,000	\$232,884	\$0.10
171	CH2M LEAD	4-FIELD/ES	C-89	Greening of S Salina and S Warren Intersection	600 block S Salina St and 700 block S Warren St	2012	City of Syracuse	544,000	\$132,471	\$0.24
172	CH2M LEAD	4-FIELD/ES	E-07	Private Parking Lot-Marshall St and Crouse Ave	801 - 841 Crouse Ave. & Marshall St	2012	Syracuse University	188,000	\$64,360	\$0.34
173	CH2M LEAD	4-FIELD/ES	E-11	Green Park: Highland Park Greening	421 Highland	2012	City of Syracuse Parks Depart	132,000	\$65,033	\$0.49
174	CH2M LEAD	4-FIELD/ES	E-33	I-690 Disconnection	Leavenworth Ave beneath I-690 Bridge	2012	New York State DOT			
175	CH2M LEAD	4-FIELD/ES	E-40a	Westcott Street Green Street: Knoll at S. Beech	Westcott St at S Beech St	2012	City of Syracuse	56,000	\$13,442	\$0.24
176	CH2M LEAD	4-FIELD/ES	E-40b	Westcott Street Greening	Westcott St from Dell to S. Beech St	2012	City of Syracuse	626,000	\$108,000	\$0.17
177	TRACK ONLY	4-FIELD/ES	F-06	Triangle at Grant Blvd and Butternut St	Grant Blvd & Butternut St	2012	City of Syracuse			
178	CH2M LEAD	4-FIELD/ES	H-25	Green Street S Geddess	S Geddes St, Shonnard to W Onondaga St	2012	City of Syracuse			
179	CH2M LEAD	4-FIELD/ES	H-34	Rosamond Gifford Zoo: Parking Lot	One Conservation Place	2012	County of Onondaga	3,432,000	\$688,120	\$0.20
180	CH2M LEAD	5-CONCEPT	C-03	Green Roof at John H. Mulroy Civic Center	421 Montgomery Street	2013	County of Onondaga	260,000	\$363,200	\$1.40
181	CH2M LEAD	5-CONCEPT	C-04	Green Roof at AXA Towers Parking Garage	235 Harrison Street	2013	City of Syracuse	534,000	\$745,500	\$1.40
182	CH2M LEAD	5-CONCEPT	C-06a	Capture/Reuse at the County Justice Center	555 S. State Street	2012	County of Onondaga	163,000	\$30,000	\$0.18
183	CH2M LEAD	5-CONCEPT	C-10	School District Parking Lot at 701 S. Warren Street	701 S. Warren Street	2013	Syracuse City School District	724,000	\$447,669	\$0.62
184	CH2M LEAD	5-CONCEPT	C-111	Pavement Removal: Rugby Rd and Hampton Rd	Rugby Rd and Hampton Rd.	2012	City of Syracuse			
185	CH2M LEAD	5-CONCEPT	C-112	Green School: Lincoln Jr. High School	James St and Hampton Rd	2012	Syracuse City School District			
186	CH2M LEAD	5-CONCEPT	C-113	Green Street: S. Beech and Judson	S. Beech and Judson Streets	2012	City of Syracuse			
187	CH2M LEAD	5-CONCEPT	C-114	Green Street: Waverly St.	Waverly Street from Irving to Comstock St.	2012	City of Syracuse			
188	CH2M ASSIST AND TRACK	5-CONCEPT	C-115	Hanover Square	E Water St and S Warren St	2012	City of Syracuse			
189	CH2M LEAD	5-CONCEPT	C-116	Greening of Post Standard	1 S Clinton St	2012	Private			
190	TRACK ONLY	5-CONCEPT	C-124	GIF#54 Syracuse University Waverly Ave. Parking Lot	306-12 Waverly Ave	2012	Private			
191	CH2M LEAD	5-CONCEPT	C-13	Traffic Island Project #1	Intersection of W. Onondaga and West Streets	2013	City of Syracuse	238,000	\$78,000	\$0.33
192	TRACK ONLY	5-CONCEPT	C-131	Green Park: Water (Ormond) Park	1100 East Water Street	2013	City of Syracuse Parks Depart	310,000	\$214,840	\$0.69

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193	CH2M LEAD	5-CONCEPT	C-132	Green Park: Leavenworth/Barker Park	301 Park Ave and Matty Ave	2012	City of Syracuse Parks Depart	872,000	\$442,520	\$0.51
194	CH2M LEAD	5-CONCEPT	C-133	Green Park: Westmoreland Park	200-252 Westmoreland Ave	2012	City of Syracuse Parks Depart			
195	CH2M LEAD	5-CONCEPT	C-134	Green Park: Union Park	300 Kirkpatrick St and Union Pl	2013	City of Syracuse Parks Depart			
196	CH2M LEAD	5-CONCEPT	C-135	Green Park: Roesler Park	201 New St and S State St	2013	City of Syracuse Parks Depart	359,000	\$203,233	\$0.57
197	CH2M LEAD	5-CONCEPT	C-136	Green Park: Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	351,000	\$122,190	\$0.35
198	CH2M LEAD	5-CONCEPT	C-136b	Pavement Removal along Genesee St at Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	237,140	\$148,398	\$0.63
199	CH2M LEAD	5-CONCEPT	C-137	Green Park: Schiller Park	112 Whitwell Dr	2012	City of Syracuse Parks Depart			
200	CH2M LEAD	5-CONCEPT	C-138	Green Park: Grace Park	200 Grace St and Massena St	2012	City of Syracuse Parks Depart	45,000	\$16,400	\$0.37
201	CH2M LEAD	5-CONCEPT	C-143	Vacant Lot: Fayette St Orchard	2016-24 E Fayette St	2012	City of Syracuse			
202	TRACK ONLY	5-CONCEPT	C-149	GIF#063 Brewster Medical Properties		2012	Private			
203	TRACK ONLY	5-CONCEPT	C-150	GIF#064 Cathedral Academy		2012	Private			
204	TRACK ONLY	5-CONCEPT	C-151	GIF#065 Housing Visions		2012	Private			
205	TRACK ONLY	5-CONCEPT	C-152a	GIF#066 Third National Assoc. (Parcel A)		2012	Private			
206	TRACK ONLY	5-CONCEPT	C-152b	GIF#067 Third National Assoc. (Parcel B)		2012	Private			
207	TRACK ONLY	5-CONCEPT	C-152c	GIF#068 Third National Assoc. (Parcel C)		2012	Private			
208	CH2M LEAD	5-CONCEPT	C-16	Green School: Blodgett Elementary	312 Oswego Street	2013	Syracuse City School District	1,034,000	\$590,667	\$0.57
209	CH2M LEAD	5-CONCEPT	C-17	Residential Green Street at Massena Street	Massena Street from Grace Street to Kellogg Street	2013	City of Syracuse	104,000	\$38,688	\$0.37
210	CH2M LEAD	5-CONCEPT	C-18	Residential Green Street at Kellogg Street	Kellogg Street from Massena Street to Oswego Street	2013	City of Syracuse	388,000	\$80,500	\$0.21
211	CH2M ASSIST AND TRACK	5-CONCEPT	C-27	Bioretention at the Rescue Mission	155 Gifford Street	2012	Private	372,000	\$47,052	\$0.13
212	CH2M LEAD	5-CONCEPT	C-32b	County Court House Site	401 Montgomery Street	2012	County of Onondaga	99,000	\$44,055	\$0.44
213	CH2M LEAD	5-CONCEPT	C-34a	Green Roof at OnCenter : Phase II	800 S. State Street	2012	County of Onondaga	120,000	\$0	\$0.00
214	CH2M LEAD	5-CONCEPT	C-35	Green Roof at the County Sheriff's Office HQ	401 S. State Street	2013	County of Onondaga	175,000	\$311,900	\$1.78
215	CH2M LEAD	5-CONCEPT	C-36a	Green Roof at the City / County Criminal Court House	505 S. State Street	2013	City of Syracuse	263,000	\$467,900	\$1.78
216	CH2M LEAD	5-CONCEPT	C-36b	City / County Criminal Court House Site	505 S. State Street	2012	City of Syracuse	144,000	\$191,000	\$1.33
217	CH2M LEAD	5-CONCEPT	C-37	Green Roof at the County Steam Station	521 S. State Street	2013	County of Onondaga	43,000	\$92,300	\$2.17
218	CH2M LEAD	5-CONCEPT	C-49	Upstate Near West Side Green Streets #1	Wyoming St. from Otisco Street to Marcellus Street	2013	City of Syracuse			
219	CH2M ASSIST AND TRACK	5-CONCEPT	C-63a	Synapse Project - 658 W Onondaga St	659 W. Onondaga St	2012	Private	154,000		
220	CH2M ASSIST AND TRACK	5-CONCEPT	C-63b	Synapse Project - Urban Tree Nursery	663 & 659 W Onondaga St	2012	Private	100,000		
221	CH2M ASSIST AND TRACK	5-CONCEPT	C-63c	Synapse Project - W. Onondaga Street	600 block W Onondaga St	2012	Private	2,500,000		
222	CH2M LEAD	5-CONCEPT	C-64	Green Park: Thornden Park	501 Ostrom Ave	2012	City of Syracuse Parks Depart			
223	CH2M ASSIST AND TRACK	5-CONCEPT	C-67	Greening West Street Arterial Phase 1	West Street Arterial from Onondaga St to Genessee St	2012	City of Syracuse			
224	TRACK ONLY	5-CONCEPT	C-69	GIF#019 Viraj Salina, Inc.	2703-2731 S. Salina St	2012	Private	18,000	\$22,000	\$1.24
225	TRACK ONLY	5-CONCEPT	C-76	GIF#021 Alexander West Properties, LLC	307 Gifford Street	2012	Private	60,000	\$85,691	\$1.42
226	CH2M LEAD	5-CONCEPT	C-80	SFD Firehouse #1 at State St	900 S State St	2012	City of Syracuse			
227	CH2M LEAD	5-CONCEPT	C-81	SFD Firehouse #5 Geddes St	110 N Geddes St	2012	City of Syracuse			
228	CH2M LEAD	5-CONCEPT	C-82	SFD Firehouse #6 at West St	601 S West St	2012	City of Syracuse			
229	CH2M LEAD	5-CONCEPT	C-83	SFD Firehouse #7 at Fayette St	1039 E Fayette St	2012	City of Syracuse			
230	CH2M LEAD	5-CONCEPT	C-84	SFD Firehouse #10 - Genesee St	2030 E Genesee Street	2012	City of Syracuse			
231	TRACK ONLY	5-CONCEPT	C-90	WCNY and NWSI / Pro Literacy	101-19 Wyoming St & Fayette St W	2012	Private			
232	TRACK ONLY	5-CONCEPT	C-94	GIF#032 Consuela's Westside Taqueria and BBQ	523 Marcellus St	2012	Private	74,000	\$14,600	\$0.20

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
233	CH2M ASSIST AND TRACK	5-CONCEPT	C-97	Marcellus Street Parking Alignment	100 block Marcellus St, b/w Wyoming and West	2012	City of Syracuse			
234	CH2M LEAD	5-CONCEPT	E-13b	US Post Office on Teall Ave: Site Improvements	226 Teall Avenue	2012	United States Postal Service			
235	CH2M LEAD	5-CONCEPT	E-22	Green Park: Lincoln Park	Intersection of Robinson and Sherwood Ave	2012	City of Syracuse	264,000	\$109,804	\$0.42
236	CH2M LEAD	5-CONCEPT	E-41	Rose Hill Cemetery	Intersection of Lodi and E Willow St	2012	City of Syracuse			
237	CH2M ASSIST AND TRACK	5-CONCEPT	F-05a	Prospect Park Green Gateway - Phase 1	Prospect Park, E Laurel St to N Salina St	2012	City of Syracuse	1,354,000	\$535,600	\$0.40
238	CH2M ASSIST AND TRACK	5-CONCEPT	F-05b	Prospect Park Green Gateway - Phase 2	N Salina and 200 Block Butternut St	2012	City of Syracuse	1,291,000	\$515,000	\$0.40
239	CH2M LEAD	5-CONCEPT	F-07b	Green Park: McChesney Park	2308 Grant Blvd	2012	City of Syracuse Parks Depart	368,000	\$98,560	\$0.27
240	CH2M LEAD	5-CONCEPT	H-01	Residential Green Street at Emerson Avenue	Emerson Avenue from Schuyler Street to Ulster Street	2013	City of Syracuse	300,000	\$58,300	\$0.19
241	CH2M LEAD	5-CONCEPT	H-02	Green School: Porter Magnet School	512 Emerson Ave	2012	Syracuse City School District	1,005,000	\$331,721	\$0.33
242	CH2M LEAD	5-CONCEPT	H-03	Green School: Bellevue Middle School	1607 S. Geddes St	2012	Syracuse City School District	190,000	\$130,686	\$0.69
243	TRACK ONLY	5-CONCEPT	H-23	GIF#023 K & C Auto Body Shop	2104 Erie Boluevard West and 1207 Willis Avenue	2012	Private	153,000	\$98,500	\$0.65
244	CH2M ASSIST AND TRACK	5-CONCEPT	H-30	Vacant Lot Project #3	Arthur St and W Onondaga St	2012	City of Syracuse			
245	CH2M LEAD	5-CONCEPT	H-31	Rosamond Gifford Zoo: Waterfowl Exhibits	One Conservation Place	2012	County of Onondaga	932,000	\$90,000	\$0.10
246	CH2M LEAD	5-CONCEPT	H-32	Greening of Sackett Tract	W Genesee St., Park Ave., Lakeview Ave.	2012	City of Syracuse	343,000	\$107,420	\$0.31
247	CH2M LEAD	5-CONCEPT	H-33	Green Park: Lewis Park Enhancements	305 Lewis St and 825 Milton Ave	2012	City of Syracuse Parks Depart	352,000	\$112,886	\$0.32
248	CH2M LEAD	5-CONCEPT	H-35	Vacant Lot: Everson Ave Rain Garden	701 Emerson Ave & 101 Chemung St	2012	City of Syracuse			
249	CH2M LEAD	5-CONCEPT	H-36	Green Park: Wadsworth Park	1204 Glenwood Ave and Wolcott Ave	2012	City of Syracuse Parks Depart	359,000	\$165,640	\$0.46
250	CH2M LEAD	5-CONCEPT	H-37	Vacant Lot: Delaware/Dudley Orchard	100,102 Dudley & 401 Delaware	2012	City of Syracuse			
251	CH2M LEAD	5-CONCEPT	H-38	Vacant Lot: Putnam Street	224, 226 Putnam ST	2012	City of Syracuse			
252	CH2M LEAD	5-CONCEPT	M-05	Stream Inflow Removal #1	I-81 near Woodland Ave.	2012	City of Syracuse			
253	CH2M LEAD	5-CONCEPT	M-06	Stream Inflow Removal #2	I-81 near Colvin Ave.	2012	City of Syracuse			
254	CH2M LEAD	5-CONCEPT	M-07	Stream Inflow Removal #3	Oakwood Cemetery near Moore Ave.	2012	City of Syracuse			
255	CH2M LEAD	5-CONCEPT	M-08	Residential Green Street at Euclid Ave	Euclid Avenue from Sumner Ave. to Ackerman Ave.	2013	City of Syracuse	418,000	\$91,511	\$0.22
256	CH2M LEAD	5-CONCEPT	M-09	Residential Green Street at Baldwin Ave	Baldwin Avenue from Newell Street to Kirk Park Drive	2013	City of Syracuse	521,000	\$102,297	\$0.20
257	CH2M LEAD	5-CONCEPT	M-11a	Green Roof at Firehouse Station #8	2412 S. Salina St	2013	City of Syracuse	43,000	\$63,480	\$1.47
258	CH2M LEAD	5-CONCEPT	M-11b	SFD Firehouse #8 at Salina St (Site)	2412 S. Salina St	2012	City of Syracuse	109,000	\$50,118	\$0.46
259	CH2M LEAD	5-CONCEPT	M-12b	US Post Office on Salina Street: Site Improvements	2200 S. Salina St	2012	United States Postal Service	593,000	\$78,280	\$0.13
260	CH2M LEAD	5-CONCEPT	M-29b	Vacant Lot: 147 Hughes Place	147 Hughes Place	2012	City of Syracuse			
261	CH2M LEAD	5-CONCEPT	M-29c	Vacant Lot: 220 Lorraine Ave	220 Lorraine Ave	2012	City of Syracuse			
262	TRACK ONLY	5-CONCEPT	M-32	GIF#027 People's AME Zion Church	2226-28 South Salina St.	2012	Private	94,000	\$54,700	\$0.58
263	TRACK ONLY	5-CONCEPT	M-33	GIF#028 Viraj NY LLC (Deb's Convenience Market)	2419 South Salina St	2012	Private	263,000	\$85,750	\$0.33
264	TRACK ONLY	5-CONCEPT	M-34	GIF#029 Viraj Salinia Inc. (Factory Direct Furniture and Mattress)	2711-31 and 2703 South Salina St	2012	Private	437,000	\$32,737	\$0.07
265	CH2M LEAD	5-CONCEPT	M-43	Green Park: Comfort Tyler Park	1212-14 E Colvin St and Comstock Ave	2012	City of Syracuse Parks Depart	611,000	\$195,004	\$0.32
266	CH2M LEAD	5-CONCEPT	M-46	Green Street: Salina b/w E. Colvin and E. Brighton	Salina b/w E. Colvin and E. Brighton	2012	City of Syracuse			
267	CH2M LEAD	5-CONCEPT	T-01	SFD Firehouse #9 at Shuart Ave	400 Shuart Ave	2012	City of Syracuse			
268	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-05	Develop and Implement an Impervious Area Based Rate Incentive	NA	2012	NA			
269	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-06	Track Projects that Apply an Impervious Area Based Rate Incentive	NA	2012	NA			
270	CH2M LEAD	5-CONCEPT	ZZ-09a	Civil Unit Price Contract-2012	N/A	2012	Multiple			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
271	TRACK ONLY	6-IDEA	C-130	State Office Building Parking Lot	333 E. Washington St.	2012	New York State			
272	CH2M LEAD	6-IDEA	C-142	Pavement Removal in ROW @Walnut ST	500 Block Walnut ST at Genesee	2012	City of Syracuse			
273	CH2M LEAD	6-IDEA	C-145	Park at Lodi and N. State	Lodi and N. State	2012	City of Syracuse Parks Depart			
274	CH2M LEAD	6-IDEA	C-148	Sunnycrest Park at Clifton Place	Clifton Place at Sunnycrest Park entrance	2012	City of Syracuse Parks Depart			
275	TRACK ONLY	6-IDEA	C-28	SUNY Upstate BioTechnology Center (Kennedy Sq. Redev)	820-900 E. Water St.	2012	SUNY Upstate			
276	CH2M LEAD	6-IDEA	C-40	Commercial Green Streets: Erie Boulevard & Water Street Open Space/Median in Clinton Basin	Between Erie Blvd. & Water St. From S. Beech St. to University Ave.	2013	City of Syracuse			
277	CH2M LEAD	6-IDEA	C-44	Green Roof at Center for Forensic Sciences	100 Elizabeth Blackwell St.	2013	New York State			
278	CH2M LEAD	6-IDEA	C-47	County Parking Lot at Townsend St. and Justice Center	555 S. State Street	2012	County of Onondaga			
279	CH2M LEAD	6-IDEA	C-54e	East Side of Montgomery Street	Montgomery St	2012	City of Syracuse	146,260	\$106,000	\$0.72
280	CH2M LEAD	6-IDEA	C-87	VA Medical Facility	800 Irving Ave	2012	USA			
281	CH2M LEAD	6-IDEA	E-05	Commercial Green Streets: Erie Boulevard in EBSS Basin	Teall Avenue to Midler Avenue	2012	City of Syracuse			
282	TRACK ONLY	6-IDEA	E-09	Crouse Hospital: Parking at Hospital Entrance	E. Adams St & S Crouse Ave.	2012	Crouse Health Hospital			
283	CH2M LEAD	6-IDEA	E-17	Green School: T.A. Levy School	Fellows Ave and Harvard Place	2012	Syracuse City School District			
284	CH2M LEAD	6-IDEA	E-19	Green School: Henniger High School	600 Robinson Street	2012	Syracuse City School District			
285	CH2M LEAD	6-IDEA	E-20	Green School: Huntington School	Sunnycrest Rd and Stanford	2012	Syracuse City School District			
286	CH2M LEAD	6-IDEA	E-21	City DPW Maintenance Building	1200 Canal Street	2012	City of Syracuse			
287	CH2M LEAD	6-IDEA	E-32	Parking Lot at 1101 Erie Blvd. East	1101 Erie Blvd. East	2012	1101 Investors LLC			
288	TRACK ONLY	6-IDEA	E-37	Winkleman Site	101 Greenway Ave	2013	Private			
289	TRACK ONLY	6-IDEA	E-38	Sims Matchplate Site	2176 Erie Blvd E & Beattie St	2013	City of Syracuse			
290	CH2M LEAD	6-IDEA	H-15	Constructed Wetland at CSO 063	Basin 063	2013	County of Onondaga			
291	CH2M LEAD	6-IDEA	H-18	Wetland Treatment for CSO 078	Basin 078	2013	County of Onondaga			
292	CH2M LEAD	6-IDEA	H-21	City School: Frazer School Green Roof	741 Park Ave & Wall St	2013	City of Syracuse			
293	CH2M LEAD	6-IDEA	H-22	Green Street: 800 block Park Ave	800 block Park Ave @ Liberty St	2012	City of Syracuse			
294	TRACK ONLY	6-IDEA	H-40	Tree Plantings at Woodland Reservoir	S Geddes and Stolp Ave	2013				
295	TRACK ONLY	6-IDEA	IH-03	Commercial Green Streets: Hiawatha Boulevard	TBD	2012	City of Syracuse			
296	TRACK ONLY	6-IDEA	M-27	Brown Manufacturing Site	101 Chester St & Bellvue Ave	2013	City of Syracuse			
297	TRACK ONLY	6-IDEA	M-28	South Salina SIDA Properties	1000 Block of S Salina St	2013	SIDA			
298	TRACK ONLY	6-IDEA	M-30	Southwest Community Center	401-45 South Ave & Clover St	2012	City of Syracuse			
299	CH2M LEAD	6-IDEA	M-47	Neighborhood GI at Midland 067	Midland Basin 067	2012	Public			
300	CH2M LEAD	6-IDEA	ZZ-08	City Parks Spray Fountain Volume Reduction Project	multiple	2012	City of Syracuse Parks Depart			
301	CH2M LEAD	7-INACTIVE	C-02	Highway Runoff Management: I-81 at Genesee St	E. Genesee Street, adjacent to I-81 overpass	9999	City of Syracuse			
302	CH2M LEAD	7-INACTIVE	C-05	Green Roof at the Public Safety Building	511 S. State Street	9999	County of Onondaga			
303	CH2M LEAD	7-INACTIVE	C-06	Green Roof at the County Justice Center	555 S. State Street	9999	County of Onondaga			
304	CH2M LEAD	7-INACTIVE	C-08	Pavement Removal Project #1	Pavement Strip on E Adams St b/w State and Townsend	9999	City of Syracuse			
305	TRACK ONLY	7-INACTIVE	C-102	GIF#038 Leonard Apartments	400-412 W Onondaga St / 828 S West St	9999	Private			
306	TRACK ONLY	7-INACTIVE	C-107	GIF#043 Grange Realty Associates	203 E. Water Street	9999	Private			
307	TRACK ONLY	7-INACTIVE	C-126	GIF#56 Copper Beech Commons Student Housing	1054 East Genesee St	9999	Private			
308	TRACK ONLY	7-INACTIVE	C-127	GIF#57 Copper Beech Commons North Parking Lot	208 University Ave	9999	Private			
309	CH2M ASSIST AND TRACK	7-INACTIVE	C-14	Vacant Lot Project #1	116 to 122 Seymour Street (two City parcels)	9999	City of Syracuse			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
310	CH2M ASSIST AND TRACK	7-INACTIVE	C-15	Green School: St. Lucy's	428 Gifford Street	9999	Private			
311	CH2M LEAD	7-INACTIVE	C-32a	Green Roof at the County Court House	401 Montgomery Street	9999	County of Onondaga			
312	CH2M LEAD	7-INACTIVE	C-43	Private Parking Garage: Shoppers	S Clinton at Walton St	9999	Crouse Health Hospital			
313	TRACK ONLY	7-INACTIVE	C-46	Bioretention at National Grid	301 W. Genesee St.	9999	Niagara Mohawk Power Corp			
314	CH2M LEAD	7-INACTIVE	C-50	Upstate Near West Side Green Streets #2	Block of Marcellus St, Seneca St, Otisco St, and Ontario St	9999	City of Syracuse			
315	CH2M LEAD	7-INACTIVE	C-54a	Downtown Streetscape Grant Project @ Salina St	300 block S. Salina St.	9999	City of Syracuse			
316	CH2M LEAD	7-INACTIVE	C-54b	Downtown Streetscape Grant Projects @ Warren St.	400 block S. Warren St.	9999	City of Syracuse			
317	CH2M ASSIST AND TRACK	7-INACTIVE	C-62	444 E Genesee St	444 E Genesee St.	9999	Private			
318	TRACK ONLY	7-INACTIVE	C-71	GIF#014 Activism in Commerce	617 S. Warren Street	9999	Private			
319	TRACK ONLY	7-INACTIVE	C-72	Central New York Community Foundation	447 Fayette St E & Townsend Ave	9999	Private			
320	CH2M ASSIST AND TRACK	7-INACTIVE	CW-03	Creekwalk: Hiawatha Blvd. to Onondaga Lake	Creekwalk: Hiawatha Blvd. to Onondaga Lake	9999	City of Syracuse			
321	CH2M ASSIST AND TRACK	7-INACTIVE	E-04	Green Roof at Crouse Hospital Expansion	736 Irving Ave	9999	Crouse Health Hospital			
322	CH2M LEAD	7-INACTIVE	E-13a	US Post Office on Teall Ave: Green Roof	226 Teall Avenue	9999	United States Postal Service			
323	CH2M LEAD	7-INACTIVE	E-14	Parking Lot (Syracuse Division of Water)	841 Canal St.	9999	City of Syracuse			
324	CH2M LEAD	7-INACTIVE	E-15	Erie Blvd. Syracuse Police Maintenance Facility	2109 Erie Blvd. East	9999	City of Syracuse			
325	CH2M LEAD	7-INACTIVE	E-23	Road Recon. Project No. 1: Lodi Street	Lodi Street from Erie Blvd. to Burnet Ave,	9999	City of Syracuse			
326	CH2M LEAD	7-INACTIVE	E-24	Road Recon. Project No. 2: University Ave	University Ave. from E. Adams St. to Waverly Ave.	9999	City of Syracuse			
327	CH2M LEAD	7-INACTIVE	E-25	Road Recon. Project No. 4: Victoria Place	Victoria Place from Westcott St. to Allen St.	9999	City of Syracuse			
328	CH2M LEAD	7-INACTIVE	E-26	Road Recon. Project No. 5: Erie Blvd. East	Erie Blvd. East from State St. to Almond St.	9999	City of Syracuse			
329	CH2M LEAD	7-INACTIVE	E-27	Road Recon. Project No. 6: Manilla St.	Manilla St. from Oak St. through dead end	9999	City of Syracuse			
330	CH2M LEAD	7-INACTIVE	E-28	Road Recon. Project No. 7: Hickory St.	Hickory St. from Prospect Ave. to N. Townsend St.	9999	City of Syracuse			
331	CH2M LEAD	7-INACTIVE	F-03	SFD Firehouse #2 at Lodi St	2300 Lodi St	9999	City of Syracuse			
332	CH2M LEAD	7-INACTIVE	HW-02	Green Park: Washington Square Park	101 Washington Square	9999	City of Syracuse Parks Depart			
333	CH2M ASSIST AND TRACK	7-INACTIVE	M-10	Green Roof at Beauchamp Library	2111 S. Salina St	9999	City of Syracuse			
334	TRACK ONLY	7-INACTIVE	M-18	GIF#002 Syracuse Model Neighborhood Corp.	1721 S. Salina St.	9999	Private			
335	CH2M LEAD	7-INACTIVE	M-22	Green Street at Jamesville Ave	300 block Jamesville Ave	9999	City of Syracuse			
336	TRACK ONLY	7-INACTIVE	M-26	GIF#016 CPGT Properties	115 Lafayette Ave	9999	Private			
337	TRACK ONLY	7-INACTIVE	M-38	GIF#035 Home Headquarters Salina	2331 S Salina St	9999	Private		\$0	
338	CH2M LEAD	7-INACTIVE	M-48	Vacant Lot: South Ave Rain Garden	1705 and 1721-23 South Ave	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost

Total

138,937,810

\$31,606,689

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Average

0.52

Rain Barrel Program:

CSO reduction estimated as follows: in 2010, 272 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel

272 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 911,472 gallons and CSO reduction = 647,145 gallons

Cost: 272 rain barrels @ \$70/barrel = \$19,040

CSO reduction estimated as follows: in 2011, 363 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel

363 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 1,216,000 gallons and CSO reduction = 863,000 gallons

Cost: 363 rain barrels @ \$70/barrel = \$25,410

Program 01: Streets



Onondaga County Department of Water Environment Protection Green Infrastructure Project List Program 01 Streets

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-117	Tree Plantings in Court Woodlawn	Grant Blvd and Woodlawn Terrace	2011	Private	84,000	\$0	\$0.00
2	CH2M LEAD	1-CONSTRUCTED	C-12a	Townsend St Median Revegetation Phase 1	S Townsend St, from E Adams St to E Genessee St	2011	City of Syracuse	225,000	\$86,000	\$0.38
3	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-12b	Townsend St Median Revegetation Phase 2	E. Adams St to E. Taylor St	2011	City of Syracuse	38,000	\$43,029	\$1.14
4	TRACK ONLY	1-CONSTRUCTED	C-134b	Tree Planting at Union & Demong Parks	Union Pl, Kirkpatrick St, N Salina St	2011	City of Syracuse	34,000	\$0	\$0.00
5	TRACK ONLY	1-CONSTRUCTED	C-137b	Tree Planting at Schiller Park	112 Whitwell Dr	2011	City of Syracuse	114,000	\$0	\$0.00
6	CH2M LEAD	1-CONSTRUCTED	C-54d	Downtown Streetscape Grant Projects @ Montgomery St	300 block Montgomery	2011	City of Syracuse	119,000	\$96,600	\$0.81
7	CH2M LEAD	1-CONSTRUCTED	E-10	Road Recon. Project No. 3: Concord Place	Concord Place from Westcott St. to Allen St.	2011	City of Syracuse	481,000	\$78,970	\$0.16
8	CH2M LEAD	1-CONSTRUCTED	H-08	Road Recon. Project No. 8: Geddes Street	300-500 blocks S. Geddes St	2011	City of Syracuse	371,000	\$203,274	\$0.55
9	CH2M LEAD	1-CONSTRUCTED	H-10	Tree Planting in and around Burnet Park	Harbor Brook Sewershed	2010	City of Syracuse	58,000	\$11,480	\$0.20
10	TRACK ONLY	1-CONSTRUCTED	HW-01	DPW Pavement Reduction #1: 100-300 Blocks Burdick Ave	Burdick Ave from Court Street to Murray Ave	2008	City of Syracuse	43,000	\$0	\$0.00
11	TRACK ONLY	1-CONSTRUCTED	IH-01	Infiltration Trench #1	Spencer Street between Liberty Street and Hiawatha Blvd.	2009	City of Syracuse			
12	TRACK ONLY	1-CONSTRUCTED	ZZ-02a	Street Tree Planting Spring 2011	various locations	2011	NA	50,000	\$122,352	
13	TRACK ONLY	1-CONSTRUCTED	ZZ-02b	Street Tree Planting Fall 2011	various	2011	City of Syracuse	297,000	\$122,532	\$0.41
14	CH2M LEAD	2-UNDER CONSTRUCTION	C-11	Commercial Green Streets: Harrison Street	Harrison Street, from Montgomery to State Streets	2011	City of Syracuse	128,000	\$109,920	\$0.86
15	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29a	Connective Corridor Phase 1 - Contract 1 (University Ave)	University Ave, from E Genessee to Waverly St	2011	City of Syracuse	4,076,820	\$948,717	\$0.23
16	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29b	Connective Corr Phase 1 - Contract 2 (E. Genessee St)	E Genessee St from University Ave to Forman Ave	2011	City of Syracuse	1,771,000	\$442,750	\$0.25
17	CH2M LEAD	2-UNDER CONSTRUCTION	C-54c	Downtown Streetscape Grant Project @ Water St	200 block E Water	2011	City of Syracuse	93,000	\$133,400	\$1.43
18	CH2M LEAD	2-UNDER CONSTRUCTION	C-61	Gateway Project at Water Street	300 Water Street	2011		656,000	\$920,088	\$1.40
19	CH2M LEAD	2-UNDER CONSTRUCTION	C-74a	Otisco Street Green Corridor - Phase 1	from Ontario St to Seneca St	2011	City of Syracuse	1,818,000	\$1,413,732	\$0.78
20	CH2M LEAD	2-UNDER CONSTRUCTION	E-39	East Water Street Pavement Removal	Interesection of S Beech and E Water at Erie Blvd.	2011	City of Syracuse	545,000	\$123,000	\$0.23
21	CH2M LEAD	2-UNDER CONSTRUCTION	M-23	Greening the Grey in Basin 044	400-700 W Castle Street	2011	TBD	652,000	\$82,050	\$0.13
22	TRACK ONLY	2-UNDER CONSTRUCTION	M-37	Rooftop Disconnect in CSO 045	119 Crescent Ave	2011	Private	49,000	\$0	\$0.00
23	CH2M ASSIST AND TRACK	3-DESIGN	C-29d	Connective Corridor Phase 2	E Genessee St, McBride St to S West St	2012	City of Syracuse	9,419,000		
24	CH2M ASSIST AND TRACK	3-DESIGN	C-29e	Connective Corridor Phase 3	S Salina St to Fayette St	2012	City of Syracuse	5,128,330		
25	CH2M LEAD	3-DESIGN	C-68	Street Trees along Marcellus Ave	Marcellus from S Geddes to Seneca	2012	City of Syracuse	28,000	\$7,000	\$0.25
26	CH2M LEAD	3-DESIGN	C-73	Onondaga Street Corridor/Gateway Project	From W Adams to South Ave	2012	City of Syracuse			
27	CH2M LEAD	3-DESIGN	C-86	Bank Alley Enhancement	Alley between E Washington and E Fayette St	2012	City of Syracuse	440,000	\$182,000	\$0.41
28	CH2M LEAD	3-DESIGN	C-88	Almond Street Pavement Removal	Between Madison and E. Genessee	2012	City of Syracuse	398,000	\$361,252	\$0.91
29	CH2M LEAD	3-DESIGN	E-18	Traffic Triangle Project No. 1: Harvard Pl	Westmoreland and Harvard Place	2012	City of Syracuse	92,000	\$19,992	\$0.22
30	CH2M LEAD	3-DESIGN	F-04b	Green Street: N State St at City Lot 4	N State St bw Butternut and Ash	2012	City of Syracuse	849,000	\$111,876	\$0.13
31	CH2M LEAD	4-FIELD/ES	C-74b	Otisco Street Green Corridor Phase 2	From Oswego St to Wyoming St	2012	City of Syracuse	2,301,000	\$232,884	\$0.10
32	CH2M LEAD	4-FIELD/ES	C-89	Greening of S Salina and S Warren Intersection	600 block S Salina St and 700 block S Warren St	2012	City of Syracuse	544,000	\$132,471	\$0.24
33	CH2M LEAD	4-FIELD/ES	E-33	I-690 Disconnection	Leavenworth Ave beneath I-690 Bridge	2012	New York State DOT			
34	CH2M LEAD	4-FIELD/ES	E-40a	Westcott Street Green Street: Knoll at S. Beech	Westcott St at S Beech St	2012	City of Syracuse	56,000	\$13,442	\$0.24
35	CH2M LEAD	4-FIELD/ES	E-40b	Westcott Street Greening	Westcott St from Dell to S. Beech St	2012	City of Syracuse	626,000	\$108,000	\$0.17

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
36	TRACK ONLY	4-FIELD/ES	F-06	Triangle at Grant Blvd and Butternut St	Grant Blvd & Butternut St	2012	City of Syracuse			
37	CH2M LEAD	4-FIELD/ES	H-25	Green Street S Geddess	S Geddes St, Shonnard to W Onondaga St	2012	City of Syracuse			
38	CH2M LEAD	5-CONCEPT	C-111	Pavement Removal: Rugby Rd and Hampton Rd	Rugby Rd and Hampton Rd.	2012	City of Syracuse			
39	CH2M LEAD	5-CONCEPT	C-113	Green Street: S. Beech and Judson	S. Beech and Judson Streets	2012	City of Syracuse			
40	CH2M LEAD	5-CONCEPT	C-114	Green Street: Waverly St.	Waverly Street from Irving to Comstock St.	2012	City of Syracuse			
41	CH2M LEAD	5-CONCEPT	C-13	Traffic Island Project #1	Intersection of W. Onondaga and West Streets	2013	City of Syracuse	238,000	\$78,000	\$0.33
42	CH2M LEAD	5-CONCEPT	C-136b	Pavement Removal along Genesee St at Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	237,140	\$148,398	\$0.63
43	CH2M LEAD	5-CONCEPT	C-17	Residential Green Street at Massena Street	Massena Street from Grace Street to Kellogg Street	2013	City of Syracuse	104,000	\$38,688	\$0.37
44	CH2M LEAD	5-CONCEPT	C-18	Residential Green Street at Kellogg Street	Kellogg Street from Massena Street to Oswego Street	2013	City of Syracuse	388,000	\$80,500	\$0.21
45	CH2M LEAD	5-CONCEPT	C-49	Upstate Near West Side Green Streets #1	Wyoming St. from Otisco Street to Marcellus Street	2013	City of Syracuse			
46	CH2M ASSIST AND TRACK	5-CONCEPT	C-67	Greening West Street Arterial Phase 1	West Street Arterial from Onondaga St to Genessee St	2012	City of Syracuse			
47	CH2M ASSIST AND TRACK	5-CONCEPT	C-97	Marcellus Street Parking Alignment	100 block Marcellus St, b/w Wyoming and West	2012	City of Syracuse			
48	CH2M ASSIST AND TRACK	5-CONCEPT	F-05a	Prospect Park Green Gateway - Phase 1	Prospect Park, E Laurel St to N Salina St	2012	City of Syracuse	1,354,000		
49	CH2M ASSIST AND TRACK	5-CONCEPT	F-05b	Prospect Park Green Gateway - Phase 2	N Salina and 200 Block Butternut St	2012	City of Syracuse	1,291,000		
50	CH2M LEAD	5-CONCEPT	H-01	Residential Green Street at Emerson Avenue	Emerson Avenue from Schuyler Street to Ulster Street	2013	City of Syracuse	300,000	\$58,300	\$0.19
51	CH2M LEAD	5-CONCEPT	H-32	Greening of Sackett Tract	W Genesee St., Park Ave., Lakeview Ave.	2012	City of Syracuse	343,000	\$107,420	\$0.31
52	CH2M LEAD	5-CONCEPT	M-08	Residential Green Street at Euclid Ave	Euclid Avenue from Sumner Ave. to Ackerman Ave.	2013	City of Syracuse	418,000	\$91,511	\$0.22
53	CH2M LEAD	5-CONCEPT	M-09	Residential Green Street at Baldwin Ave	Baldwin Avenue from Newell Street to Kirk Park Drive	2013	City of Syracuse	521,000	\$102,297	\$0.20
54	CH2M LEAD	5-CONCEPT	M-46	Green Street: Salina b/w E. Colvin and E. Brighton	Salina b/w E. Colvin and E. Brighton	2012	City of Syracuse			
55	CH2M LEAD	6-IDEA	C-142	Pavement Removal in ROW @Walnut ST	500 Block Walnut ST at Genessee	2012	City of Syracuse			
56	CH2M LEAD	6-IDEA	C-40	Commercial Green Streets: Erie Boulevard & Water Street Open Space/Median in Clinton Basin	Between Erie Blvd. & Water St. From S. Beech St. to University Ave.	2013	City of Syracuse			
57	CH2M LEAD	6-IDEA	C-54e	East Side of Montgomery Street	Montgomery St	2012	City of Syracuse	146,260	\$106,000	\$0.72
58	CH2M LEAD	6-IDEA	E-05	Commercial Green Streets: Erie Boulevard in EBSS Basin	Teall Avenue to Midler Avenue	2012	City of Syracuse			
59	CH2M LEAD	6-IDEA	H-22	Green Street: 800 block Park Ave	800 block Park Ave @ Liberty St	2012	City of Syracuse			
60	CH2M LEAD	6-IDEA	H-77	2011 Road Recon #1	TBD	2012	City of Syracuse	483,000	\$170,000	
61	CH2M LEAD	6-IDEA	H-78	2011 Road Recon #2	TBD	2012	City of Syracuse	483,000	\$170,000	
62	CH2M LEAD	6-IDEA	H-79	2011 Road Recon #3	TBD	2012	City of Syracuse	483,000	\$170,000	
63	CH2M LEAD	6-IDEA	H-80	2011 Road Recon #4	TBD	2012	City of Syracuse	483,000	\$170,000	
64	TRACK ONLY	6-IDEA	IH-03	Commercial Green Streets: Hiawatha Boulevard	TBD	2012	City of Syracuse			
65	CH2M LEAD	6-IDEA	M-47	Neighborhood GI at Midland 067	Midland Basin 067	2012	Public			
66	CH2M LEAD	7-INACTIVE	C-02	Highway Runoff Management: I-81 at Genesee St	E. Genesee Street, adjacent to I-81 overpass	9999	City of Syracuse			
67	CH2M LEAD	7-INACTIVE	C-08	Pavement Removal Project #1	Pavement Strip on E Adams St b/w State and Townsend	9999	City of Syracuse			
68	CH2M LEAD	7-INACTIVE	C-50	Upstate Near West Side Green Streets #2	Block of Marcellus St, Seneca St, Otisco St, and Ontario St	9999	City of Syracuse			
69	CH2M LEAD	7-INACTIVE	C-54a	Downtown Streetscape Grant Project @ Salina St	300 block S. Salina St.	9999	City of Syracuse			
70	CH2M LEAD	7-INACTIVE	C-54b	Downtown Streetscape Grant Projects @ Warren St.	400 block S. Warren St.	9999	City of Syracuse			
71	CH2M LEAD	7-INACTIVE	E-23	Road Recon. Project No. 1: Lodi Street	Lodi Street from Erie Blvd. to Burnet Ave,	9999	City of Syracuse			
72	CH2M LEAD	7-INACTIVE	E-24	Road Recon. Project No. 2: University Ave	University Ave. from E. Adams St. to Waverly Ave.	9999	City of Syracuse			
73	CH2M LEAD	7-INACTIVE	E-25	Road Recon. Project No. 4: Victoria Place	Victoria Place from Westcott St. to Allen St.	9999	City of Syracuse			
74	CH2M LEAD	7-INACTIVE	E-26	Road Recon. Project No. 5: Erie Blvd. East	Erie Blvd. East from State St. to Almond St.	9999	City of Syracuse			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	<u>CSO Reduction (gal/yr)</u>	<u>Cost (1)</u>	<u>Cost per CSO Reduction</u>
75	CH2M LEAD	7-INACTIVE	E-27	Road Recon. Project No. 6: Manilla St.	Manilla St. from Oak St. through dead end	9999	City of Syracuse			
76	CH2M LEAD	7-INACTIVE	E-28	Road Recon. Project No. 7: Hickory St.	Hickory St. from Prospect Ave. to N. Townsend St.	9999	City of Syracuse			
77	CH2M LEAD	7-INACTIVE	M-22	Green Street at Jamesville Ave	300 block Jamesville Ave	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates

Total38,856,550\$7,597,924Average0.39

Program 02: Parks and Open Spaces



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 02 Parks and Open Space

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-29c	Forman Park	E Genesee and Almond Streets	2011	City of Syracuse	86,000	\$50,000	\$0.58
2	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-01	Creekwalk: Jefferson to Walton Streets	Creekwalk: Jefferson to Walton Streets	2010	City of Syracuse	96,000	\$63,311	\$0.66
3	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-02	Creekwalk: Walton to E. Fayette Streets	Creekwalk: Walton to E. Fayette Streets	2010	City of Syracuse	85,000	\$47,000	\$0.56
4	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-19	Rosamond Gifford Zoo: Elephant Exhibit	One Conservation Place	2011	County of Onondaga	275,000	\$183,000	\$0.67
5	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-20	Rosamond Gifford Zoo: Primate Exhibit	One Conservation Place	2010	County of Onondaga	613,000	\$25,000	
6	CH2M LEAD	2-UNDER CONSTRUCTION	C-101	Green Park: Skiddy Park (Site)	Tully St between Oswego and Tioga	2011	City of Syracuse	638,000	\$244,000	\$0.72
7	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-99	Vacant Lot Project #2	701 Oswego Street	2011	City of Syracuse	184,000	\$85,214	\$0.46
8	CH2M LEAD	2-UNDER CONSTRUCTION	E-16	Sunnycrest Park Golf Parking Lot	Caleb Ave	2011	City of Syracuse Parks Depart	506,000	\$362,599	\$0.72
9	CH2M LEAD	2-UNDER CONSTRUCTION	E-31	Pocket Park at N. Clinton St. and W. Genesee St.	200-202 W. Genesee St.	2011	City of Syracuse	89,000	\$105,000	\$1.18
10	CH2M LEAD	2-UNDER CONSTRUCTION	H-11	Avery Ave Greening at Pass Arboretum	Avery Ave and Tompkins St	2011	City of Syracuse Parks Depart	530,000	\$316,420	\$0.60
11	CH2M LEAD	2-UNDER CONSTRUCTION	H-13	Wilbur Avenue Zoo Entrance Enhancement	S Wilbur Ave and Coleridge Ave	2011	City of Syracuse	483,000	\$299,990	\$0.62
12	CH2M LEAD	3-DESIGN	H-14	Harbor Brook CSO 018 Wetland Project	Velasko Rd & Grand Ave	2012	County of Onondaga	14,880,000	\$2,490,000	
13	CH2M LEAD	4-FIELD/ES	C-104	Civic Center Forecourt	E Onondaga St. and Montgomery St.	2012	City of Syracuse	107,000	\$88,000	\$0.83
14	CH2M LEAD	4-FIELD/ES	E-11	Green Park: Highland Park Greening	421 Highland	2012	City of Syracuse Parks Depart	132,000	\$65,033	\$0.49
15	CH2M ASSIST AND TRACK	5-CONCEPT	C-115	Hanover Square	E Water St and S Warren St	2012	City of Syracuse			
16	TRACK ONLY	5-CONCEPT	C-131	Green Park: Water (Ormond) Park	1100 East Water Street	2013	City of Syracuse Parks Depart	310,000	\$214,840	\$0.69
17	CH2M LEAD	5-CONCEPT	C-132	Green Park: Leavenworth/Barker Park	301 Park Ave and Matty Ave	2012	City of Syracuse Parks Depart	872,000	\$442,520	\$0.51
18	CH2M LEAD	5-CONCEPT	C-133	Green Park: Westmoreland Park	200-252 Westmoreland Ave	2012	City of Syracuse Parks Depart			
19	CH2M LEAD	5-CONCEPT	C-134	Green Park: Union Park	300 Kirkpatrick St and Union Pl	2013	City of Syracuse Parks Depart			
20	CH2M LEAD	5-CONCEPT	C-135	Green Park: Roesler Park	201 New St and S State St	2013	City of Syracuse Parks Depart	359,000	\$203,233	\$0.57
21	CH2M LEAD	5-CONCEPT	C-136	Green Park: Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	351,000	\$122,190	\$0.35
22	CH2M LEAD	5-CONCEPT	C-137	Green Park: Schiller Park	112 Whitwell Dr	2012	City of Syracuse Parks Depart			
23	CH2M LEAD	5-CONCEPT	C-138	Green Park: Grace Park	200 Grace St and Massena St	2012	City of Syracuse Parks Depart	45,000	\$16,400	\$0.37
24	CH2M LEAD	5-CONCEPT	C-143	Vacant Lot: Fayette St Orchard	2016-24 E Fayette St	2012	City of Syracuse			
25	CH2M LEAD	5-CONCEPT	C-64	Green Park: Thornden Park	501 Ostrom Ave	2012	City of Syracuse Parks Depart			
26	CH2M LEAD	5-CONCEPT	E-22	Green Park: Lincoln Park	Intersection of Robinson and Sherwood Ave	2012	City of Syracuse	264,000	\$109,804	\$0.42
27	CH2M LEAD	5-CONCEPT	F-07b	Green Park: McChesney Park	2308 Grant Blvd	2012	City of Syracuse Parks Depart	368,000	\$98,560	\$0.27
28	CH2M ASSIST AND TRACK	5-CONCEPT	H-30	Vacant Lot Project #3	Arthur St and W Onondaga St	2012	City of Syracuse			
29	CH2M LEAD	5-CONCEPT	H-31	Rosamond Gifford Zoo: Waterfowl Exhibits	One Conservation Place	2012	County of Onondaga	932,000	\$90,000	\$0.10
30	CH2M LEAD	5-CONCEPT	H-33	Green Park: Lewis Park Enhancements	305 Lewis St and 825 Milton Ave	2012	City of Syracuse Parks Depart	352,000	\$112,886	\$0.32
31	CH2M LEAD	5-CONCEPT	H-35	Vacant Lot: Everson Ave Rain Garden	701 Emerson Ave & 101 Chemung St	2012	City of Syracuse			
32	CH2M LEAD	5-CONCEPT	H-36	Green Park: Wadsworth Park	1204 Glenwood Ave and Wolcott Ave	2012	City of Syracuse Parks Depart	359,000	\$165,640	\$0.46
33	CH2M LEAD	5-CONCEPT	H-37	Vacant Lot: Delaware/Dudley Orchard	100,102 Dudley & 401 Delaware	2012	City of Syracuse			
34	CH2M LEAD	5-CONCEPT	H-38	Vacant Lot: Putnam Street	224, 226 Putnam ST	2012	City of Syracuse			
35	CH2M LEAD	5-CONCEPT	M-05	Stream Inflow Removal #1	I-81 near Woodland Ave.	2012	City of Syracuse			
36	CH2M LEAD	5-CONCEPT	M-06	Stream Inflow Removal #2	I-81 near Colvin Ave.	2012	City of Syracuse			
37	CH2M LEAD	5-CONCEPT	M-07	Stream Inflow Removal #3	Oakwood Cemetery near Moore Ave.	2012	City of Syracuse			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
38	CH2M LEAD	5-CONCEPT	M-29b	Vacant Lot: 147 Hughes Place	147 Hughes Place	2012	City of Syracuse			
39	CH2M LEAD	5-CONCEPT	M-29c	Vacant Lot: 220 Lorraine Ave	220 Lorraine Ave	2012	City of Syracuse			
40	CH2M LEAD	5-CONCEPT	M-43	Green Park: Comfort Tyler Park	1212-14 E Colvin St and Comstock Ave	2012	City of Syracuse Parks Depart	611,000	\$195,004	\$0.32
41	CH2M LEAD	6-IDEA	C-145	Park at Lodi and N. State	Lodi and N. State	2012	City of Syracuse Parks Depart			
42	CH2M LEAD	6-IDEA	C-148	Sunnycrest Park at Clifton Place	Clifton Place at Sunnycrest Park entrance	2012	City of Syracuse Parks Depart			
43	CH2M LEAD	6-IDEA	H-15	Constructed Wetland at CSO 063	Basin 063	2013	County of Onondaga			
44	CH2M LEAD	6-IDEA	H-18	Wetland Treatment for CSO 078	Basin 078	2013	County of Onondaga			
45	TRACK ONLY	6-IDEA	H-40	Tree Plantings at Woodland Reservoir	S Geddes and Stolp Ave	2013	Various			
46	CH2M LEAD	6-IDEA	ZZ-08	City Parks Spray Fountain Volume Reduction Project	multiple	2012	City of Syracuse Parks Depart			
47	CH2M ASSIST AND TRACK	7-INACTIVE	C-14	Vacant Lot Project #1	116 to 122 Seymour Street (two City parcels)	9999	City of Syracuse			
48	CH2M ASSIST AND TRACK	7-INACTIVE	CW-03	Creekwalk: Hiawatha Blvd. to Onondaga Lake	Creekwalk: Hiawatha Blvd. to Onondaga Lake	9999	City of Syracuse			
49	CH2M LEAD	7-INACTIVE	HW-02	Green Park: Washington Square Park	101 Washington Square	9999	City of Syracuse Parks Depart			
50	CH2M LEAD	7-INACTIVE	M-48	Vacant Lot: South Ave Rain Garden	1705 and 1721-23 South Ave	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

23,527,000

\$6,195,644

Average

0.54

Program 03: Parking



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 03 Parking Lots

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M LEAD	1-CONSTRUCTED	C-01	City Parking Lot #21	Southwest corner of W. Washington and Clinton Streets	2010	Syracuse Urban Renewal Agen	328,000	\$188,046	\$0.57
2	CH2M LEAD	1-CONSTRUCTED	C-09	County Parking Lot B at S. Townsend Street	431 Harrison St & Townsend Street	2010	County of Onondaga	692,000	\$342,000	\$0.49
3	TRACK ONLY	1-CONSTRUCTED	C-146	Havens Parking Lot at SU	E Adams St and Comstock Ave	2011	Syracuse University		\$0	
4	TRACK ONLY	1-CONSTRUCTED	C-147	Waverly Parking Lot at SU	805 South Crouse Avenue	2011	Syracuse University		\$0	
5	CH2M LEAD	1-CONSTRUCTED	C-38	County Parking Lot: OnCenter	801 - 813 S. State Street; 422 - 434 Harrison St	2011	County of Onondaga	1,676,000	\$812,000	\$0.48
6	CH2M LEAD	1-CONSTRUCTED	E-06	City Parking Lot #3	101 Oswego Blvd	2010	Syracuse Urban Renewal Agen	481,000	\$239,102	\$0.50
7	CH2M LEAD	1-CONSTRUCTED	F-01	City Parking Lot at Pearl Street	400 block of Pearl Street	2010	New York State DOT	913,000	\$396,772	\$0.43
8	TRACK ONLY	1-CONSTRUCTED	M-49	Stadium Parking Lot at SU	Stadium Place at E Raynor Ave	2011	Syracuse University		\$0	
9	CH2M LEAD	2-UNDER CONSTRUCTION	C-85	SCSD Central Offices	725 Harrison Street	2011	Syracuse City School District	1,446,000	\$403,500	\$0.28
10	CH2M LEAD	2-UNDER CONSTRUCTION	E-36	Sunnycrest Arena Parking Lot	St. Anne Dr and Robinson St	2011	City of Syracuse Parks Depart	1,332,000	\$407,000	\$0.31
11	CH2M LEAD	3-DESIGN	C-100	Everson Garage / Plaza	788 S Townsend St	2012	County of Onondaga	929,000	\$185,800	\$0.20
12	CH2M LEAD	3-DESIGN	F-04	City Parking Lot #4	Butternut and N State Sts	2012	New York State DOT	854,130	\$313,250	\$0.37
13	CH2M LEAD	4-FIELD/ES	C-110	Seymour Academy Parking Lot	180 Shonnard St	2012	Syracuse City School District	290,000	\$112,590	\$0.39
14	CH2M LEAD	4-FIELD/ES	H-34	Rosamond Gifford Zoo: Parking Lot	One Conservation Place	2012	County of Onondaga	3,432,000	\$688,120	\$0.20
15	CH2M LEAD	5-CONCEPT	C-10	School District Parking Lot at 701 S. Warren Street	701 S. Warren Street	2013	Syracuse City School District	724,000	\$447,669	\$0.62
16	CH2M LEAD	6-IDEA	C-47	County Parking Lot at Townsend St. and Justice Center	555 S. State Street	2012	County of Onondaga			
17	CH2M LEAD	6-IDEA	E-32	Parking Lot at 1101 Erie Blvd. East	1101 Erie Blvd. East	2012	1101 Investors LLC			
18	CH2M LEAD	7-INACTIVE	E-14	Parking Lot (Syracuse Division of Water)	841 Canal St.	9999	City of Syracuse			
19	CH2M LEAD	7-INACTIVE	E-15	Erie Blvd. Syracuse Police Maintenance Facility	2109 Erie Blvd. East	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total13,097,130\$4,535,850Average0.4

Program 04: Public Facilities



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 03 Public Facilities

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-93	Seymour School Rain Garden	108 Shonnard Street	2010	Syracuse City School District	7,000	\$0	\$0.00
2	TRACK ONLY	1-CONSTRUCTED	E-34	Rain Garden at Henniger High School	600 Robinson St	2010	Syracuse City School District	13,000	\$0	\$0.00
3	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-42	County Board of Election Building	1000 Erie Blvd W & Liberty St	2011	County of Onondaga	0	\$0	\$0.00
4	CH2M LEAD	1-CONSTRUCTED	H-16	Porous concrete sidewalk on Grand Ave	100 Grand Ave	2010	City of Syracuse	7,000	\$7,800	\$1.10
5	TRACK ONLY	1-CONSTRUCTED	M-01	Green Roof at SUNY ESF Walters Hall	Walters Hall, 1 Forestry Drive	2008	SUNY ESF	84,000	\$0	\$0.00
6	TRACK ONLY	1-CONSTRUCTED	M-13	Flexipave at SUNY ESF Illick Hall	1 Forestry Drive	2008	SUNY ESF	700	\$0	\$0.00
7	TRACK ONLY	1-CONSTRUCTED	M-14	Flexipave at SUNY ESF Moon Library	1 Forestry Drive	2008	SUNY ESF	6,000	\$0	\$0.00
8	TRACK ONLY	1-CONSTRUCTED	M-15	SUNY ESF Parking Project	1 Forestry Drive	2008	SUNY ESF	179,000	\$0	\$0.00
9	TRACK ONLY	1-CONSTRUCTED	M-16	SUNY ESF Gateway Building	1 Forestry Drive	2010	SUNY ESF	314,000	\$0	\$0.00
10	TRACK ONLY	1-CONSTRUCTED	M-21	SUNY ESF Illisk Hall Rain Garden	1 Forestry Drive	2010	SUNY ESF	325,000	\$0	\$0.00
11	CH2M LEAD	2-UNDER CONSTRUCTION	C-07	Municipal Parking Garage: OnCenter	817 - 835 S. State Street and E. Adams Street	2011	County of Onondaga	907,000	\$246,985	\$0.27
12	CH2M LEAD	2-UNDER CONSTRUCTION	C-33	Cistern System at the War Memorial	200 Madison Street	2011	County of Onondaga	285,000	\$1,229,241	\$4.32
13	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-55	Green School: SCSD Institute of Technology	258 E. Adams St.	2011	Syracuse City School District	1,598,000	\$0	\$0.00
14	TRACK ONLY	2-UNDER CONSTRUCTION	C-98a	Greening the Grey at Clinton Storage Facility	Street North to West Jefferson (Trolley Lot)	2011	County of Onondaga		\$0	\$0.00
15	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	E-12	Dr Edwin E Weeks Elementary School	710 Hawley Ave	2011	Syracuse City School District	1,546,000	\$89,000	\$0.06
16	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-17	Rain Garden at Grand & Delaware	Grand Ave & Delaware St	2011	City of Syracuse	161,000	\$0	\$0.00
17	TRACK ONLY	2-UNDER CONSTRUCTION	H-27	Greening the Grey at Harbor Brook Storage Facility	State Fair Blvd. and Rusin Ave (near Waite Ave)	2011	County of Onondaga	0	\$0	\$0.00
18	CH2M LEAD	2-UNDER CONSTRUCTION	M-29	Hughes Magnet School Parking Lot	745 -55 Jamesville Ave	2011	Syracuse City School District	1,068,000	\$288,700	\$0.27
19	CH2M LEAD	3-DESIGN	C-53	City Hall Forecourt	233 E. Washington Street	2012	City of Syracuse	404,000	\$376,000	\$0.93
20	CH2M LEAD	3-DESIGN	C-60	Green School: Seymour Academy Playground	108 Shonnard Street	2012	Syracuse City School District	381,000	\$265,000	\$2.06
21	TRACK ONLY	3-DESIGN	C-98b	Clinton Storage: MoST Roof Leaders	Street North to West Jefferson (Trolley Lot)	2012	County of Onondaga	963,000	\$0	\$0.00
22	CH2M ASSIST AND TRACK	3-DESIGN	E-08	Green Library: Petit Branch	105 Victoria Place	2012	City of Syracuse	134,000	\$105,000	\$0.78
23	CH2M LEAD	3-DESIGN	E-43	Westcott Community Center	822-26 Euclid Ave and Westcott St	2012	City of Syracuse	108,630	\$15,070	\$0.14
24	CH2M ASSIST AND TRACK	3-DESIGN	F-02	Green Library: White Branch	763 Butternut St	2012	City of Syracuse	141,000	\$85,000	\$0.60
25	CH2M ASSIST AND TRACK	3-DESIGN	H-05b	Green Library: Hazard Branch Site Improvements	1620 West Genesee St	2012	City of Syracuse	192,000	\$125,000	\$0.65
26	CH2M ASSIST AND TRACK	3-DESIGN	H-06	Green Library: Mundy Branch	1204 South Geddes St	2012	City of Syracuse	105,000	\$100,000	\$0.95
27	CH2M ASSIST AND TRACK	3-DESIGN	H-09	Green School: Playground at Delaware School	900 S Geddes St	2012	Syracuse City School District	126,000	\$76,230	\$0.60
28	CH2M ASSIST AND TRACK	3-DESIGN	M-10b	Green Library: Beauchamp Site Improvements	2111 S. Salina St	2012	City of Syracuse	160,000	\$85,000	\$0.53
29	TRACK ONLY	3-DESIGN	M-42	Greening Vacant Lot near Beauchamp Library	tbd	2012	City of Syracuse			
30	CH2M LEAD	5-CONCEPT	C-06a	Capture/Reuse at the County Justice Center	555 S. State Street	2012	County of Onondaga	163,000	\$30,000	\$0.18
31	CH2M LEAD	5-CONCEPT	C-112	Green School: Lincoln Jr. High School	James St and Hampton Rd	2012	Syracuse City School District			
32	CH2M LEAD	5-CONCEPT	C-16	Green School: Blodgett Elementary	312 Oswego Street	2013	Syracuse City School District	1,034,000	\$590,667	\$0.57
33	CH2M LEAD	5-CONCEPT	C-32b	County Court House Site	401 Montgomery Street	2012	County of Onondaga	99,000	\$44,055	\$0.44
34	CH2M LEAD	5-CONCEPT	C-36b	City / County Criminal Court House Site	505 S. State Street	2012	City of Syracuse	144,000	\$191,000	\$1.33
35	CH2M LEAD	5-CONCEPT	C-80	SFD Firehouse #1 at State St	900 S State St	2012	City of Syracuse			
36	CH2M LEAD	5-CONCEPT	C-81	SFD Firehouse #5 Geddes St	110 N Geddes St	2012	City of Syracuse			
37	CH2M LEAD	5-CONCEPT	C-82	SFD Firehouse #6 at West St	601 S West St	2012	City of Syracuse			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
38	CH2M LEAD	5-CONCEPT	C-83	SFD Firehouse #7 at Fayette St	1039 E Fayette St	2012	City of Syracuse			
39	CH2M LEAD	5-CONCEPT	C-84	SFD Firehouse #10 - Genesee St	2030 E Genesee Street	2012	City of Syracuse			
40	CH2M LEAD	5-CONCEPT	E-13b	US Post Office on Teall Ave: Site Improvements	226 Teall Avenue	2012	United States Postal Service			
41	CH2M LEAD	5-CONCEPT	E-41	Rose Hill Cemetery	Intersection of Lodi and E Willow St	2012	City of Syracuse			
42	CH2M LEAD	5-CONCEPT	H-02	Green School: Porter Magnet School	512 Emerson Ave	2012	Syracuse City School District	1,005,000	\$331,721	\$0.33
43	CH2M LEAD	5-CONCEPT	H-03	Green School: Bellevue Middle School	1607 S. Geddes St	2012	Syracuse City School District	190,000	\$130,686	\$0.69
44	CH2M LEAD	5-CONCEPT	M-11b	SFD Firehouse #8 at Salina St (Site)	2412 S. Salina St	2012	City of Syracuse	109,000	\$50,118	\$0.46
45	CH2M LEAD	5-CONCEPT	M-12b	US Post Office on Salina Street: Site Improvements	2200 S. Salina St	2012	United States Postal Service	593,000	\$78,280	\$0.13
46	CH2M LEAD	5-CONCEPT	T-01	SFD Firehouse #9 at Shuart Ave	400 Shuart Ave	2012	City of Syracuse			
47	TRACK ONLY	6-IDEA	C-130	State Office Building Parking Lot	333 E. Washington St.	2012	New York State			
48	TRACK ONLY	6-IDEA	C-28	SUNY Upstate BioTechnology Center (Kennedy Sq. Redev)	820-900 E. Water St.	2012	SUNY Upstate			
49	CH2M LEAD	6-IDEA	E-17	Green School: T.A. Levy School	Fellows Ave and Harvard Place	2012	Syracuse City School District			
50	CH2M LEAD	6-IDEA	E-19	Green School: Henniger High School	600 Robinson Street	2012	Syracuse City School District			
51	CH2M LEAD	6-IDEA	E-20	Green School: Huntington School	Sunnycrest Rd and Stanford	2012	Syracuse City School District			
52	CH2M LEAD	6-IDEA	E-21	City DPW Maintenance Building	1200 Canal Street	2012	City of Syracuse			
53	TRACK ONLY	6-IDEA	M-30	Southwest Community Center	401-45 South Ave & Clover St	2012	City of Syracuse			
54	CH2M ASSIST AND TRACK	7-INACTIVE	C-15	Green School: St. Lucy's	428 Gifford Street	9999	Private			
55	CH2M LEAD	7-INACTIVE	E-13a	US Post Office on Teall Ave: Green Roof	226 Teall Avenue	9999	United States Postal Service			
56	CH2M LEAD	7-INACTIVE	F-03	SFD Firehouse #2 at Lodi St	2300 Lodi St	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

12,552,330

\$4,540,554

Average

0.48

Program 05: Roofs



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 05 Rooftop

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M LEAD	1-CONSTRUCTED	C-34	Green Roof at OnCenter	800 S. State Street	2011	County of Onondaga	825,000	\$1,038,000	\$1.26
2	CH2M LEAD	2-UNDER CONSTRUCTION	C-48	Green Roof at Erie Canal Museum and Visitor Center	318 Erie Blvd. East	2011	County of Onondaga	28,000	\$73,480	\$2.65
3	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-05	Green Roof at Hazard Branch Library	1620 West Genesee St	2011	City of Syracuse	62,000	\$67,275	\$1.08
4	CH2M LEAD	3-DESIGN	F-07	Magnarelli Community Center Green Roof	2308 Grant Blvd	2012	City of Syracuse Parks Depart	127,800	\$188,416	\$1.47
5	CH2M LEAD	3-DESIGN	M-12a	US Post Office on Salina St: Green Roof	2200 S. Salina St	2012	United States Postal Service	161,000	\$236,331	\$1.47
6	CH2M LEAD	5-CONCEPT	C-03	Green Roof at John H. Mulroy Civic Center	421 Montgomery Street	2013	County of Onondaga	260,000	\$363,200	\$1.40
7	CH2M LEAD	5-CONCEPT	C-04	Green Roof at AXA Towers Parking Garage	235 Harrison Street	2013	City of Syracuse	534,000	\$745,500	\$1.40
8	CH2M LEAD	5-CONCEPT	C-34a	Green Roof at OnCenter : Phase II	800 S. State Street	2012	County of Onondaga	120,000	\$0	\$0.00
9	CH2M LEAD	5-CONCEPT	C-35	Green Roof at the County Sheriff's Office HQ	401 S. State Street	2013	County of Onondaga	175,000	\$311,900	\$1.78
10	CH2M LEAD	5-CONCEPT	C-36a	Green Roof at the City / County Criminal Court House	505 S. State Street	2013	City of Syracuse	263,000	\$467,900	\$1.78
11	CH2M LEAD	5-CONCEPT	C-37	Green Roof at the County Steam Station	521 S. State Street	2013	County of Onondaga	43,000	\$92,300	\$2.17
12	CH2M LEAD	5-CONCEPT	M-11a	Green Roof at Firehouse Station #8	2412 S. Salina St	2013	City of Syracuse	43,000	\$63,480	\$1.47
13	CH2M LEAD	6-IDEA	C-44	Green Roof at Center for Forensic Sciences	100 Elizabeth Blackwell St.	2013	New York State			
14	CH2M LEAD	6-IDEA	H-21	City School: Frazer School Green Roof	741 Park Ave & Wall St	2013	City of Syracuse			
15	CH2M LEAD	7-INACTIVE	C-05	Green Roof at the Public Safety Building	511 S. State Street	9999	County of Onondaga			
16	CH2M LEAD	7-INACTIVE	C-06	Green Roof at the County Justice Center	555 S. State Street	9999	County of Onondaga			
17	CH2M LEAD	7-INACTIVE	C-32a	Green Roof at the County Court House	401 Montgomery Street	9999	County of Onondaga			
18	CH2M ASSIST AND TRACK	7-INACTIVE	M-10	Green Roof at Beauchamp Library	2111 S. Salina St	9999	City of Syracuse			

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

2,641,800

\$3,647,782

Average

1.49

Program 06: Impervious Area Data



Onondaga County Department of Water Environment Protection Green Infrastructure Project List -Program 06 -
Impervious Area Data

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	ZZ-01	Model Calibration to Measured Residential Roof/Drive Disconnection	NA	2008		29,800,000	\$0	

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates

Total29,800,000\$0
Average

Program 07: Voluntary



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 07 Voluntary

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-20	Green Roof at Center of Excellence	727 E. Washington Street	2010	Syracuse University	212,000	\$0	\$0.00
2	TRACK ONLY	1-CONSTRUCTED	C-22	Flexipave at Home Headquarters #1	N/A	2008	Private	29,000	\$0	\$0.00
3	TRACK ONLY	1-CONSTRUCTED	C-23	Flexipave at Home Headquarters #2	NA	2008	Syracuse Housing Authority	5,000	\$0	\$0.00
4	TRACK ONLY	1-CONSTRUCTED	C-24	Flexipave at Catholic Charities	NA	2008	Private	1,000	\$0	\$0.00
5	TRACK ONLY	1-CONSTRUCTED	C-25	Flexipave at Museum of Science & Technology	NA	2008	Private	18,000	\$0	\$0.00
6	TRACK ONLY	1-CONSTRUCTED	C-26	Flexipave at SUNY Upstate Hospital Day Care	NA	2008	Syracuse University	44,000	\$0	\$0.00
7	TRACK ONLY	1-CONSTRUCTED	C-41	Private Parking Lot at Islamic Society of NY	925 Comstock Ave	2008	Private	28,000	\$0	\$0.00
8	TRACK ONLY	1-CONSTRUCTED	E-01	Flexipave at Ross Brothers Office Building	NA	2008	Private	6,000	\$0	\$0.00
9	TRACK ONLY	1-CONSTRUCTED	E-02	Flexipave at Forest View Retiremt Development	NA	2008	Private	21,000	\$0	\$0.00
10	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-03	St. Joseph's Hospital Campus Exp and Redvt	301 Prospect Ave	2010	Private	234,000	\$0	\$0.00
11	TRACK ONLY	1-CONSTRUCTED	E-29	SU Rain Garden: Waverly & Crouse	801 - 841 S. Crouse Ave.	2008	Syracuse University	37,000	\$0	\$0.00
12	TRACK ONLY	1-CONSTRUCTED	H-04	Flexipave at Private Residence #1	NA at W Marcellus St	2008	Private	8,000	\$0	\$0.00
13	TRACK ONLY	1-CONSTRUCTED	IH-02	Private Parking Lot at Liberty Green	531 Liberty Street	2009	Private	0	\$0	\$0.00
14	TRACK ONLY	1-CONSTRUCTED	IH-04	Rain Garden at Syracuse Harbor	Van Rensselear St	2011	New York State	0	\$0	\$0.00
15	TRACK ONLY	1-CONSTRUCTED	M-02	Green Church: Church of Latter Day Saints	801 E Colvin St	2008	Private	323,000	\$0	\$0.00
16	TRACK ONLY	1-CONSTRUCTED	M-39	Bellevue Academy Tree Plantings	S Geddes and Grant Ave	2011	Syracuse City School District	14,000	\$0	\$0.00
17	TRACK ONLY	1-CONSTRUCTED	M-44	Site Improvements at Bishop Foery Center	Edmund Ave	2011	Private			
18	TRACK ONLY	1-CONSTRUCTED	M-45	Rain Garden at Barnabas Center	1941 S Salina St	2011	Private			
19	TRACK ONLY	1-CONSTRUCTED	ZZ-07a	Countywide Rain Barrel Program	n/a	2010	Private	647,000	\$19,040	\$0.03
20	TRACK ONLY	1-CONSTRUCTED	ZZ-07b	Countywide Rain Barrel Program	n/a	2011	Private	863,000	\$25,410	\$0.03
21	TRACK ONLY	2-UNDER CONSTRUCTION	C-75a	SUNY Upstate Cancer Center Green Roof	750 E Adams St	2011	Private	150,000	\$0	\$0.00
22	TRACK ONLY	2-UNDER CONSTRUCTION	C-75b	SUNY Upstate Cancer Center Rain Garden	750 E Adams St	2011	Private	23,000	\$0	\$0.00
23	TRACK ONLY	2-UNDER CONSTRUCTION	C-75c	SUNY Upstate Cancer Center Tree Planting	750 E Adams St	2011	Private	23,000	\$0	\$0.00
24	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-91	SUNY Upstate: Institute of Human Performance Expansion	505 Irving Avenue	2011	Private	293,000	\$0	\$0.00
25	TRACK ONLY	3-DESIGN	C-144	Kennedy Square Redevelopment	E Fayette St and S Crouse	2013	Private			
26	TRACK ONLY	3-DESIGN	C-95	SUNY Townsend Tower	507-523 E Adams Street	2012	Private			
27	CH2M ASSIST AND TRACK	5-CONCEPT	C-63a	Synapse Project - 658 W Onondaga St	659 W. Onondaga St	2012	Private	154,000		
28	CH2M ASSIST AND TRACK	5-CONCEPT	C-63b	Synapse Project - Urban Tree Nursery	663 & 659 W Onondaga St	2012	Private	100,000		
29	CH2M ASSIST AND TRACK	5-CONCEPT	C-63c	Synapse Project - W. Onondaga Street	600 block W Onondaga St	2012	Private	2,500,000		
30	CH2M LEAD	5-CONCEPT	ZZ-09a	Civil Unit Price Contract-2012	N/A	2012	Multiple			
31	TRACK ONLY	6-IDEA	E-37	Winkleman Site	101 Greenway Ave	2013	Private			
32	TRACK ONLY	6-IDEA	E-38	Sims Matchplate Site	2176 Erie Blvd E & Beattie St	2013	City of Syracuse			
33	TRACK ONLY	6-IDEA	M-27	Brown Manufacturing Site	101 Chester St & Bellvue Ave	2013	City of Syracuse			
34	TRACK ONLY	6-IDEA	M-28	South Salina SIDA Properties	1000 Block of S Salina St	2013	SIDA			
35	TRACK ONLY	7-INACTIVE	C-46	Bioretention at National Grid	301 W. Genesee St.	9999	Niagara Mohawk Power Corp			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1) Note: Gray highlighted cells indicate as-constructed cost Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;								Total	5,733,000	\$44,450
Rain Barrel Program: CSO reduction estimated as follows: in 2010, 272 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel 272 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 911,472 gallons and CSO reduction = 647,145 gallons Cost: 272 rain barrels @ \$70/barrel = \$19,040 CSO reduction estimated as follows: in 2011, 363 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel 363 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 1,216,000 gallons and CSO reduction = 863,000 gallons Cost: 363 rain barrels @ \$70/barrel = \$25,410								Average		0

Program 08: Green Improvement Fund (GIF)



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 08 GIF Projects

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-21	GIF#004 Jefferson Clinton Commons	500 S. Clinton St	2010	Private	212,000	\$100,000	\$0.47
2	TRACK ONLY	1-CONSTRUCTED	C-31	GIF#010 Near Westside Iniative Lincoln Supply	109 Otisco St	2010	Private	338,000	\$78,000	\$0.23
3	TRACK ONLY	1-CONSTRUCTED	C-51	GIF#001 The Spa at 500 W. Onondaga	500 W. Onondaga St	2010	Private	107,000	\$60,000	\$0.56
4	TRACK ONLY	1-CONSTRUCTED	C-52	GIF#006 Green Roof at King & King Architects	358 W. Jefferson St.	2010	Private	140,000	\$100,000	\$0.71
5	TRACK ONLY	1-CONSTRUCTED	C-56	GIF#012 The Galleries Office Towers	147 E. Onondaga St.	2010	Private	250,000	\$68,680	\$0.27
6	TRACK ONLY	1-CONSTRUCTED	C-57	GIF#013 The Monroe Building	333 E. Onondaga St.	2010	Private	65,000	\$99,311	\$1.52
7	TRACK ONLY	1-CONSTRUCTED	C-58	GIF#007 Hotel Skyler	609 S. Crouse Ave.	2010	Private	123,000	\$100,000	\$0.81
8	TRACK ONLY	1-CONSTRUCTED	C-59	GIF#015 Near West Side Iniatiive: Artist Studio	109-115 Otisco & Wyoming St	2010	Private	91,000	\$22,796	\$0.25
9	TRACK ONLY	1-CONSTRUCTED	C-70	GIF#020 St Lucy's Church	316 - 318 - 320 Seymour Street	2011	Private	246,000	\$125,000	\$0.50
10	CH2M LEAD	1-CONSTRUCTED	C-92	GIF#040 Courts4Kids: Skiddy Park Porous Basketball Courts	Tully St between Oswego and Tioga	2011	City of Syracuse	244,000	\$162,075	\$0.66
11	TRACK ONLY	1-CONSTRUCTED	H-07	GIF#011 Vibrant Syracuse Spaces	196 S. Geddes St	2010	Private	125,000	\$153,618	\$1.23
12	TRACK ONLY	1-CONSTRUCTED	M-17	GIF#009 SUNY ESF Residence Hall (Centennial Hall)	1 Forestry Drive	2010	SUNY ESF	44,000	\$78,000	\$1.77
13	TRACK ONLY	1-CONSTRUCTED	M-20	GIF#008 Dunbar Association	1453 S. State St.	2010	Private	160,000	\$100,000	\$0.63
14	TRACK ONLY	1-CONSTRUCTED	M-24	GIF#003 Syracuse Model Neighborhood Corp	S Salina and E Kennedy St	2011	Private	275,000	\$250,000	\$0.91
15	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-103	GIF#039 Home HeadQuarters Marcellus	223 Marcellus St.	2011	Private	63,000	\$36,045	\$0.57
16	TRACK ONLY	2-UNDER CONSTRUCTION	C-105	GIF#041 CNY Philanthropy Center	431 E Fayette St	2011	Private	134,000	\$62,700	\$0.47
17	TRACK ONLY	2-UNDER CONSTRUCTION	C-108	GIF#044 American Beech	500 Westcott Street	2011	Private	76,000	\$53,050	\$0.70
18	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-109	GIF#45 Pemco Montgomery	217 Montgomery Street	2011	Private	606,000	\$288,000	\$0.47
19	TRACK ONLY	2-UNDER CONSTRUCTION	C-120	GIF#050 Plymouth Congregational Church	232 E. Onondaga St	2011	Private	129,000	\$73,700	\$0.57
20	TRACK ONLY	2-UNDER CONSTRUCTION	C-121	GIF#051 Park Central Presbyterian Church	509 E Fayette St	2011	Private	43,000	\$24,625	\$0.57
21	TRACK ONLY	2-UNDER CONSTRUCTION	C-122	GIF#052 St. Lucy's Parking Lot	432 Gifford Street	2011	Private	177,000	\$51,900	\$0.29
22	TRACK ONLY	2-UNDER CONSTRUCTION	C-123	GIF#053 St. Lucy's Dry Well	432 Gifford Street	2011	Private	90,000	\$17,700	\$0.20
23	TRACK ONLY	2-UNDER CONSTRUCTION	C-128	GIF#058 Loon Creek Properties	601 E. Genesee Street	2011	Private	272,000	\$124,350	\$0.46
24	TRACK ONLY	2-UNDER CONSTRUCTION	C-129	GIF#059 McMahon-Ryan Child Advocacy Center	601 E. Genesee Street	2011	Private	468,000	\$178,050	\$0.38
25	TRACK ONLY	2-UNDER CONSTRUCTION	C-139	GIF#060 Kopp Billing Agency	511 E Fayette St.	2011	Private	235,000	\$25,300	\$0.11
26	TRACK ONLY	2-UNDER CONSTRUCTION	C-140	GIF#061 The Spa at 500 Green Roof	500 W Onondaga St	2011	Private			
27	TRACK ONLY	2-UNDER CONSTRUCTION	C-141	GIF#062 Peace Incorporated	200 Wyoming Street	2011	Private	44,000	\$30,700	\$0.70
28	TRACK ONLY	2-UNDER CONSTRUCTION	C-45	GIF#018 Putnam Properties	210 E. Fayette St.	2011	Private	58,000	\$75,757	\$1.32
29	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-77	GIF#022 Alexander West Properties, LLC	327 Gifford Street	2011	Private	109,000	\$136,050	\$1.25
30	TRACK ONLY	2-UNDER CONSTRUCTION	C-78	GIF#024 CNY Regional Transportation Authority	624-662 South Warren Street	2011	Private	883,000	\$65,390	\$0.07
31	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-79	GIF#026 Central New York Jazz Arts Fndtn	441 E. Washington Street	2011	Private	38,000	\$52,188	\$1.39
32	TRACK ONLY	2-UNDER CONSTRUCTION	C-96	GIF#034 Pike Block	S Salina & W Fayette St	2011	Private	391,000	\$186,143	\$0.48
33	TRACK ONLY	2-UNDER CONSTRUCTION	H-24	GIF#031 ARC of Onondaga County	401 Lowell Ave.	2011	Private	212,000	\$95,053	\$0.45
34	TRACK ONLY	2-UNDER CONSTRUCTION	M-19	GIF#005 Jubilee Homes of Syracuse	601 South Avenue	2010	Private	145,000	\$100,000	\$0.69
35	TRACK ONLY	2-UNDER CONSTRUCTION	M-25	GIF#017 Create Public Art	713 E. Fayette St	2011	Private	64,000	\$94,611	\$1.48
36	TRACK ONLY	2-UNDER CONSTRUCTION	M-35	GIF#030 The People's Community Development Corporation	2307-2315 S. Salina St	2011	Private	66,000	\$80,200	\$1.21

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
37	TRACK ONLY	2-UNDER CONSTRUCTION	M-36	GIF#033 Matawon Development Group	2221 South Salina Street	2011	Private	52,000	\$24,214	\$0.54
38	TRACK ONLY	2-UNDER CONSTRUCTION	M-41	GIF#049 Swallow's Tavern	1908 South Ave, 1912 South Ave	2011	Private	278,000	\$89,700	\$0.32
39	TRACK ONLY	3-DESIGN	C-106	GIF#042 Center for Peace and Social Justice	2013 E. Genesee St	2012	Private	94,000	\$63,400	\$0.68
40	TRACK ONLY	3-DESIGN	C-118	GIF#047 Gemmi Boy	508-510 Westcott Street	2012	Private	34,000	\$26,837	\$0.79
41	TRACK ONLY	3-DESIGN	C-119	GIF#048 Mister Lady Bug	500-506 Westcott Street	2012	Private	100,000	\$57,950	\$0.59
42	TRACK ONLY	3-DESIGN	C-125	GIF#055 Bethany Baptist Church	149 Beattie Street	2012	Private	1,504,000	\$254,588	\$0.17
43	TRACK ONLY	3-DESIGN	H-28	GIF#036 Dependable Paving: 945 Emerson	945 Emerson Ave	2012	Private	53,000	\$32,700	\$0.61
44	TRACK ONLY	3-DESIGN	H-29	GIF#037 Dependable Paving: 947 Emerson	947 Emerson Ave	2012	Private	54,000	\$33,975	\$0.63
45	TRACK ONLY	3-DESIGN	M-31	GIF#025 Salina Shoe Company Inc	2809 S. Salina Street	2012	Private	77,000	\$85,000	\$1.10
46	TRACK ONLY	3-DESIGN	M-40	GIF#046 People's AME Zion Church	2306 S. Salina	2012	Private	51,000	\$80,642	\$1.58
47	TRACK ONLY	5-CONCEPT	C-124	GIF#54 Syracuse University Waverly Ave. Parking Lot	306-12 Waverly Ave	2012	Private			
48	TRACK ONLY	5-CONCEPT	C-149	GIF#063 Brewster Medical Properties		2012	Private			
49	TRACK ONLY	5-CONCEPT	C-150	GIF#064 Cathedral Academy		2012	Private			
50	TRACK ONLY	5-CONCEPT	C-151	GIF#065 Housing Visions		2012	Private			
51	TRACK ONLY	5-CONCEPT	C-152a	GIF#066 Third National Assoc. (Parcel A)		2012	Private			
52	TRACK ONLY	5-CONCEPT	C-152b	GIF#067 Third National Assoc. (Parcel B)		2012	Private			
53	TRACK ONLY	5-CONCEPT	C-152c	GIF#068 Third National Assoc. (Parcel C)		2012	Private			
54	TRACK ONLY	5-CONCEPT	C-69	GIF#019 Viraj Salina, Inc.	2703-2731 S. Salina St	2012	Private	18,000	\$22,000	\$1.24
55	TRACK ONLY	5-CONCEPT	C-76	GIF#021 Alexander West Properties, LLC	307 Gifford Street	2012	Private	60,000	\$85,691	\$1.42
56	TRACK ONLY	5-CONCEPT	C-90	WCNY and NWSI / Pro Literacy	101-19 Wyoming St & Fayette St W	2012	Private			
57	TRACK ONLY	5-CONCEPT	C-94	GIF#032 Consuela’s Westside Taqueria and BBQ	523 Marcellus St	2012	Private	74,000	\$14,600	\$0.20
58	TRACK ONLY	5-CONCEPT	H-23	GIF#023 K & C Auto Body Shop	2104 Erie Boluevard West and 1207 Willis Avenue	2012	Private	153,000	\$98,500	\$0.65
59	TRACK ONLY	5-CONCEPT	M-32	GIF#027 People's AME Zion Church	2226-28 South Salina St.	2012	Private	94,000	\$54,700	\$0.58
60	TRACK ONLY	5-CONCEPT	M-33	GIF#028 Viraj NY LLC (Deb's Convenience Market)	2419 South Salina St	2012	Private	263,000	\$85,750	\$0.33
61	TRACK ONLY	5-CONCEPT	M-34	GIF#029 Viraj Salinia Inc. (Factory Direct Furniture and Mattress)	2711-31 and 2703 South Salina St	2012	Private	437,000	\$32,737	\$0.07
62	CH2M LEAD	6-IDEA	C-87	VA Medical Facility	800 Irving Ave	2012	USA			
63	TRACK ONLY	7-INACTIVE	C-102	GIF#038 Leonard Apartments	400-412 W Onondaga St / 828 S West St	9999	Private			
64	TRACK ONLY	7-INACTIVE	C-107	GIF#043 Grange Realty Associates	203 E. Water Street	9999	Private			
65	TRACK ONLY	7-INACTIVE	C-126	GIF#56 Copper Beech Commons Student Housing	1054 East Genesee St	9999	Private			
66	TRACK ONLY	7-INACTIVE	C-127	GIF#57 Copper Beech Commons North Parking Lot	208 University Ave	9999	Private			
67	TRACK ONLY	7-INACTIVE	C-71	GIF#014 Activism in Commerce	617 S. Warren Street	9999	Private			
68	TRACK ONLY	7-INACTIVE	C-72	Central New York Community Foundation	447 Fayette St E & Townsend Ave	9999	Private			
69	CH2M ASSIST AND TRACK	7-INACTIVE	E-04	Green Roof at Crouse Hospital Expansion	736 Irving Ave	9999	Crouse Health Hospital			
70	TRACK ONLY	7-INACTIVE	M-18	GIF#002 Syracuse Model Neighborhood Corp.	1721 S. Salina St.	9999	Private			
71	TRACK ONLY	7-INACTIVE	M-26	GIF#016 CPGT Properties	115 Lafayette Ave	9999	Private			
72	TRACK ONLY	7-INACTIVE	M-38	GIF#035 Home Headquarters Salina	2331 S Salina St	9999	Private		\$0	

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

10,119,000

\$4,491,976

Average

0.69

Program 09: Ordinance



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 09 Ordinance

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	E-35	SU University Ave. Parking Garage Retention System	1101 E. Adams Street and University Ave	2008	Syracuse University	585,000	\$0	\$0.00
2	TRACK ONLY	1-CONSTRUCTED	M-03	Stormwater Detention Basin at Dunk and Bright	2648 South Salina St	2008	Private	2,748,000	\$0	\$0.00
3	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-03	Develop and Implement a Revised Stormwater Ordinance	NA	2012	NA			
4	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-04	Track Projects that Apply a Revised Stormwater Ordinance	NA	2012	NA			

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

3,333,000

\$0

Average

0

Program 10: Impervious Area Based Rate Incentive



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - Program 10 Impervious Area Based Rate Incentive

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-05	Develop and Implement an Impervious Area Based Rate Incentive	NA	2012	NA			
2	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-06	Track Projects that Apply an Impervious Area Based Rate Incentive	NA	2012	NA			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total0

Average

Program 11: Non-GIF Incentive



Onondaga County Department of Water Environment Protection Green Infrastructure Project List Program 11 - Non GIF Incentive

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-19	Urban Garden #1	301 to 311 S. Warren Street	2009	Private	305,000	\$0	\$0.00
2	CH2M LEAD	3-DESIGN	C-42	Private Parking Garage: Atrium	S. Franklin St and W Washington St	2011	Private	27,000	\$15,000	\$0.56
3	CH2M LEAD	4-FIELD/ES	E-07	Private Parking Lot-Marshall St and Crouse Ave	801 - 841 Crouse Ave. & Marshall St	2012	Syracuse University	188,000	\$64,360	\$0.34
4	CH2M LEAD	5-CONCEPT	C-116	Greening of Post Standard	1 S Clinton St	2012	Private			
5	CH2M ASSIST AND TRACK	5-CONCEPT	C-27	Bioretention at the Rescue Mission	155 Gifford Street	2012	Private	372,000	\$47,052	\$0.13
6	CH2M ASSIST AND TRACK	5-CONCEPT	C-62	444 E Genesee St	444 E Genesee St.	9999	Private			
7	TRACK ONLY	6-IDEA	E-09	Crouse Hospital: Parking at Hospital Entrance	E. Adams St & S Crouse Ave.	2012	Crouse Health Hospital			
8	CH2M LEAD	7-INACTIVE	C-43	Private Parking Garage: Shoppers	S Clinton at Walton St	9999	Crouse Health Hospital			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates

Total892,000\$126,412Average0.26

INSERT TAB FOR 2010 GI
PROJECTS HERE



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2010 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
1	CH2M LEAD	1-CONSTRUCTED	C-01	City Parking Lot #21	Southwest corner of W. Washington and Clinton Streets	2010	Syracuse Urban Renewal Agen	328,000	\$188,046	\$0.57
2	CH2M LEAD	1-CONSTRUCTED	C-09	County Parking Lot B at S. Townsend Street	431 Harrison St & Townsend Street	2010	County of Onondaga	692,000	\$342,000	\$0.49
3	TRACK ONLY	1-CONSTRUCTED	C-20	Green Roof at Center of Excellence	727 E. Washington Street	2010	Syracuse University	212,000	\$0	\$0.00
4	TRACK ONLY	1-CONSTRUCTED	C-21	GIF#004 Jefferson Clinton Commons	500 S. Clinton St	2010	Private	212,000	\$100,000	\$0.47
5	TRACK ONLY	1-CONSTRUCTED	C-31	GIF#010 Near Westside Iniative Lincoln Supply	109 Otisco St	2010	Private	338,000	\$78,000	\$0.23
6	TRACK ONLY	1-CONSTRUCTED	C-51	GIF#001 The Spa at 500 W. Onondaga	500 W. Onondaga St	2010	Private	107,000	\$60,000	\$0.56
7	TRACK ONLY	1-CONSTRUCTED	C-52	GIF#006 Green Roof at King & King Architects	358 W. Jefferson St.	2010	Private	140,000	\$100,000	\$0.71
8	TRACK ONLY	1-CONSTRUCTED	C-56	GIF#012 The Galleries Office Towers	147 E. Onondaga St.	2010	Private	250,000	\$68,680	\$0.27
9	TRACK ONLY	1-CONSTRUCTED	C-57	GIF#013 The Monroe Building	333 E. Onondaga St.	2010	Private	65,000	\$99,311	\$1.52
10	TRACK ONLY	1-CONSTRUCTED	C-58	GIF#007 Hotel Skyler	609 S. Crouse Ave.	2010	Private	123,000	\$100,000	\$0.81
11	TRACK ONLY	1-CONSTRUCTED	C-59	GIF#015 Near West Side Iniatiive: Artist Studio	109-115 Otisco & Wyoming St	2010	Private	91,000	\$22,796	\$0.25
12	TRACK ONLY	1-CONSTRUCTED	C-93	Seymour School Rain Garden	108 Shonnard Street	2010	Syracuse City School District	7,000	\$0	\$0.00
13	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-01	Creekwalk: Jefferson to Walton Streets	Creekwalk: Jefferson to Walton Streets	2010	City of Syracuse	96,000	\$63,311	\$0.66
14	CH2M ASSIST AND TRACK	1-CONSTRUCTED	CW-02	Creekwalk: Walton to E. Fayette Streets	Creekwalk: Walton to E. Fayette Streets	2010	City of Syracuse	85,000	\$47,000	\$0.56
15	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-03	St. Joseph's Hospital Campus Exp and Redvt	301 Prospect Ave	2010	Private	234,000	\$0	\$0.00
16	CH2M LEAD	1-CONSTRUCTED	E-06	City Parking Lot #3	101 Oswego Blvd	2010	Syracuse Urban Renewal Agen	481,000	\$239,102	\$0.50
17	TRACK ONLY	1-CONSTRUCTED	E-34	Rain Garden at Henniger High School	600 Robinson St	2010	Syracuse City School District	13,000	\$0	\$0.00
18	CH2M LEAD	1-CONSTRUCTED	F-01	City Parking Lot at Pearl Street	400 block of Pearl Street	2010	New York State DOT	913,000	\$396,772	\$0.43
19	TRACK ONLY	1-CONSTRUCTED	H-07	GIF#011 Vibrant Syracuse Spaces	196 S. Geddes St	2010	Private	125,000	\$153,618	\$1.23
20	CH2M LEAD	1-CONSTRUCTED	H-10	Tree Planting in and around Burnet Park	Harbor Brook Sewershed	2010	City of Syracuse	58,000	\$11,480	\$0.20
21	CH2M LEAD	1-CONSTRUCTED	H-16	Porous concrete sidewalk on Grand Ave	100 Grand Ave	2010	City of Syracuse	7,000	\$7,800	\$1.10
22	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-20	Rosamond Gifford Zoo: Primate Exhibit	One Conservation Place	2010	County of Onondaga	613,000	\$25,000	
23	TRACK ONLY	1-CONSTRUCTED	M-16	SUNY ESF Gateway Building	1 Forestry Drive	2010	SUNY ESF	314,000	\$0	\$0.00
24	TRACK ONLY	1-CONSTRUCTED	M-17	GIF#009 SUNY ESF Residence Hall (Centennial Hall)	1 Forestry Drive	2010	SUNY ESF	44,000	\$78,000	\$1.77
25	TRACK ONLY	1-CONSTRUCTED	M-20	GIF#008 Dunbar Association	1453 S. State St.	2010	Private	160,000	\$100,000	\$0.63
26	TRACK ONLY	1-CONSTRUCTED	M-21	SUNY ESF Illisk Hall Rain Garden	1 Forestry Drive	2010	SUNY ESF	325,000	\$0	\$0.00
27	TRACK ONLY	1-CONSTRUCTED	ZZ-07a	Countywide Rain Barrel Program	n/a	2010	Private	647,000	\$19,040	\$0.03
28	TRACK ONLY	2-UNDER CONSTRUCTION	M-19	GIF#005 Jubilee Homes of Syracuse	601 South Avenue	2010	Private	145,000	\$100,000	\$0.69

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Rain Barrel Program:
CSO reduction estimated as follows: in 2010, 272 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel
272 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 911,000 gallons and CSO reduction = 647,000 gallons
Cost: 272 rain barrels @ \$70/barrel = \$19,040

Total6,825,000\$2,399,956

Average0.51



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2009 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-19	Urban Garden #1	301 to 311 S. Warren Street	2009	Private	305,000	\$0	\$0.00
2	TRACK ONLY	1-CONSTRUCTED	IH-01	Infiltration Trench #1	Spencer Street between Liberty Street and Hiawatha Blvd.	2009	City of Syracuse			
3	TRACK ONLY	1-CONSTRUCTED	IH-02	Private Parking Lot at Liberty Green	531 Liberty Street	2009	Private	0	\$0	\$0.00

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total305,000\$0

Average0



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2008 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-22	Flexipave at Home Headquarters #1	N/A	2008	Private	29,000	\$0	\$0.00
2	TRACK ONLY	1-CONSTRUCTED	C-23	Flexipave at Home Headquarters #2	NA	2008	Syracuse Housing Authority	5,000	\$0	\$0.00
3	TRACK ONLY	1-CONSTRUCTED	C-24	Flexipave at Catholic Charities	NA	2008	Private	1,000	\$0	\$0.00
4	TRACK ONLY	1-CONSTRUCTED	C-25	Flexipave at Museum of Science & Technology	NA	2008	Private	18,000	\$0	\$0.00
5	TRACK ONLY	1-CONSTRUCTED	C-26	Flexipave at SUNY Upstate Hospital Day Care	NA	2008	Syracuse University	44,000	\$0	\$0.00
6	TRACK ONLY	1-CONSTRUCTED	C-41	Private Parking Lot at Islamic Society of NY	925 Comstock Ave	2008	Private	28,000	\$0	\$0.00
7	TRACK ONLY	1-CONSTRUCTED	E-01	Flexipave at Ross Brothers Office Building	NA	2008	Private	6,000	\$0	\$0.00
8	TRACK ONLY	1-CONSTRUCTED	E-02	Flexipave at Forest View Retiremt Development	NA	2008	Private	21,000	\$0	\$0.00
9	TRACK ONLY	1-CONSTRUCTED	E-29	SU Rain Garden: Waverly & Crouse	801 - 841 S. Crouse Ave.	2008	Syracuse University	37,000	\$0	\$0.00
10	TRACK ONLY	1-CONSTRUCTED	E-35	SU University Ave. Parking Garage Retention System	1101 E. Adams Street and University Ave	2008	Syracuse University	585,000	\$0	\$0.00
11	TRACK ONLY	1-CONSTRUCTED	H-04	Flexipave at Private Residence #1	NA at W Marcellus St	2008	Private	8,000	\$0	\$0.00
12	TRACK ONLY	1-CONSTRUCTED	HW-01	DPW Pavement Reduction #1: 100-300 Blocks Burdick Ave	Burdick Ave from Court Street to Murray Ave	2008	City of Syracuse	43,000	\$0	\$0.00
13	TRACK ONLY	1-CONSTRUCTED	M-01	Green Roof at SUNY ESF Walters Hall	Walters Hall, 1 Forestry Drive	2008	SUNY ESF	84,000	\$0	\$0.00
14	TRACK ONLY	1-CONSTRUCTED	M-02	Green Church: Church of Latter Day Saints	801 E Colvin St	2008	Private	323,000	\$0	\$0.00
15	TRACK ONLY	1-CONSTRUCTED	M-03	Stormwater Detention Basin at Dunk and Bright	2648 South Salina St	2008	Private	2,748,000	\$0	\$0.00
16	TRACK ONLY	1-CONSTRUCTED	M-13	Flexipave at SUNY ESF Illick Hall	1 Forestry Drive	2008	SUNY ESF	700	\$0	\$0.00
17	TRACK ONLY	1-CONSTRUCTED	M-14	Flexipave at SUNY ESF Moon Library	1 Forestry Drive	2008	SUNY ESF	6,000	\$0	\$0.00
18	TRACK ONLY	1-CONSTRUCTED	M-15	SUNY ESF Parking Project	1 Forestry Drive	2008	SUNY ESF	179,000	\$0	\$0.00
19	TRACK ONLY	1-CONSTRUCTED	ZZ-01	Model Calibration to Measured Residential Roof/Drive Disconnection	NA	2008		29,800,000	\$0	

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

33,965,700

\$0

Average

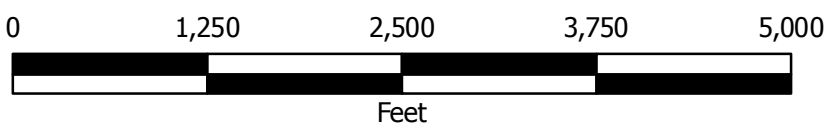
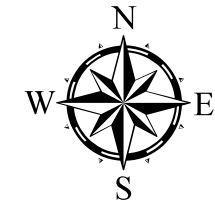
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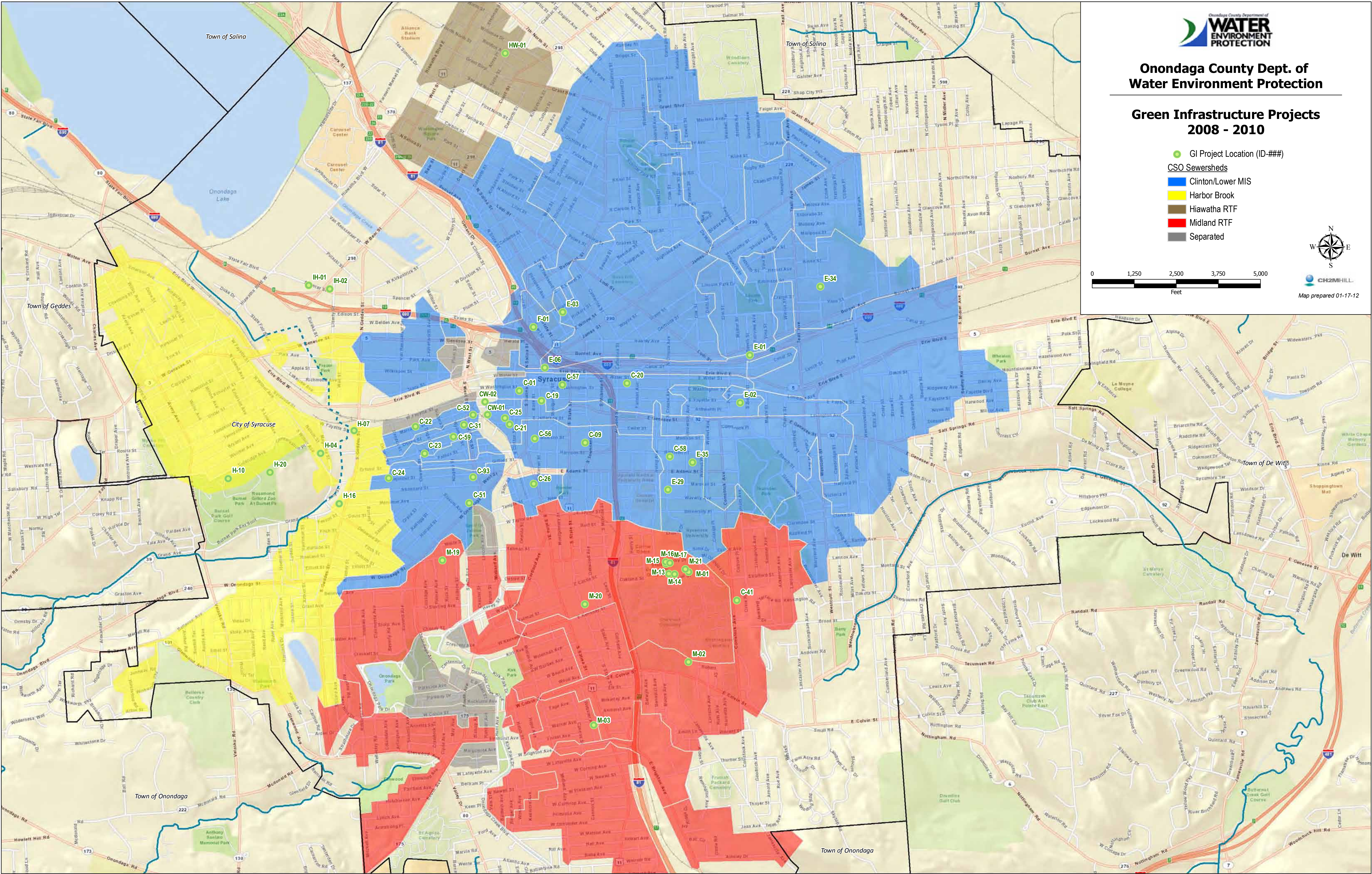
Onondaga County Dept. of
Water Environment Protection

Green Infrastructure Projects
2008 - 2010

- GI Project Location (ID-###)
- CSO Sewersheds
 - Clinton/Lower MIS
 - Harbor Brook
 - Hiawatha RTF
 - Midland RTF
 - Separated

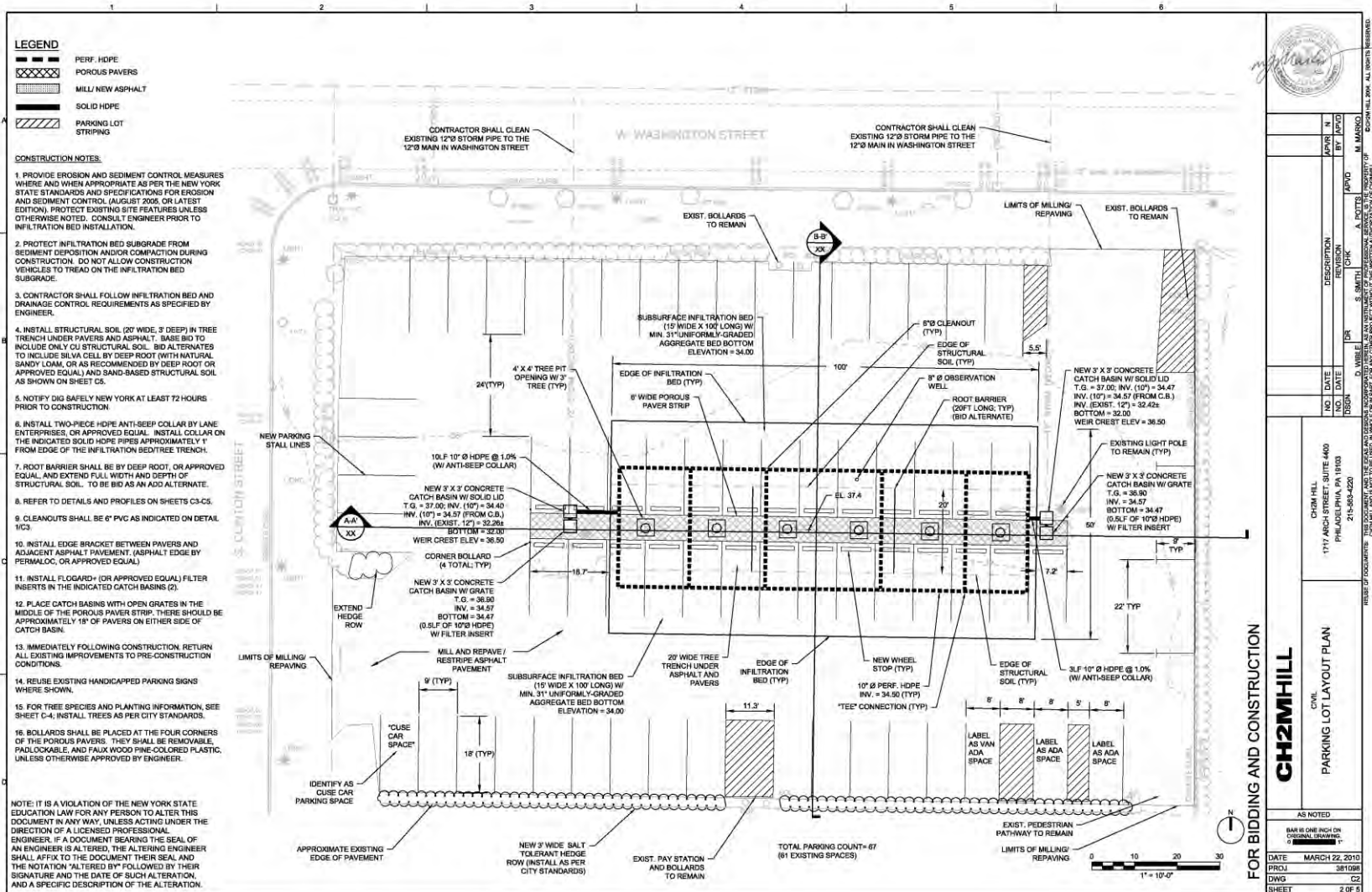


CH2M HILL
Map prepared 01-17-12



Project ID/Name: C-01 City Parking Lot #21
Proj Address: Southwest corner of W. Washington and Clinton Streets
Parcel Owner: Syracuse Urban
Renewal Agency

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	26,252	5,000	462,346
Total	26,252	5,000	462,346





FACT SHEET

City Parking Lot #21

Project Description: City Parking Lot #21 (formerly the Downtown Farmer's Market) was a stormwater retrofit project that included redesigning an existing half-acre asphalt parking lot into a more efficient and sustainable site. The project, located at the corner of West Washington and South Clinton Streets, featured the installation of an infiltration tree trench with structural soil, six native shade trees, porous pavers, and a subsurface infiltration system.

The non-porous areas of the redesigned parking lot were repaved with standard bituminous pavement and re-stripped to create six additional parking spaces, including spaces for vehicles belonging to the plug-in hybrid non-profit community car-sharing program: CuseCar. The City Lot #21 project is designed to capture 1-inch of runoff from both the lot and adjacent pavement areas, resulting in a total annual capture of approximately 462,000 gallons of stormwater.

Project:	City Parking Lot #21
Project Owner:	Syracuse Urban Renewal Agency
GI Technology:	Bioretention & Infiltration trench
Project Location:	Corner of W. Washington St. & Clinton St.
Project Owner:	Onondaga County
Sewershed:	Clinton
Capture Area:	26,250 square feet
Run-off Reduction:	462,000 gallons/yr
Year Completed:	2010
Construction Cost:	\$188,046



Before



After

Version 8/5/2011

Green Infrastructure Project Completion Report

Project C-01: City Parking Lot #21

PREPARED FOR: City-County Green Infrastructure Program Working Group
PREPARED BY: CH2M HILL
DATE: November 2011

The purpose of this memorandum is to document a summary of the important information noted during the design and construction of the City Parking Lot 21 green infrastructure project.

Item #1: Stormwater Details and Specifications

- 1A. Structure Size.** All stormwater control structures in future projects should be large enough for a person to enter; the preferred size is either 4'x4' (square) or 4' diameter (round). Precast concrete structures are City Standard.

Further Action Needed: The use of plastic stormwater structures at shallow, non-roadway locations is to be introduced to the City at future meetings as a lower-cost, reliable alternative to precast concrete.

- 1B. Inlet Grates.** All inlet grates that will be subject to pedestrian traffic in future projects will be both ADA compliant and bicycle safe.
- 1C. Overflow Weirs.** Weir plates should be removable and located in such a way as to allow the outlet pipe to be maintained. In addition, the top of the weir should not be located so close to the inlet grate such that large debris or trash may affect the weir's functionality. The weir design has been modified to address all these concerns.
- 1D. Inlet Filter Inserts.** There is currently no official agreement in-place regarding who will maintain (empty/clean) the filter inserts specified. The City strongly feels that the filter inserts will be very high maintenance and will clog frequently, and prefer the use of stainless steel traps to settle out solids and debris. The trap design provides additional benefit to a catch basin sump; however, there may still be unsettled fines that will clog the infiltration bed stone over time.

Further Action Needed: More research into the amount and type of fines entering catch basins, as well as their implications on infiltration practice, is necessary prior to discontinuing the use of filter inserts permanently. If the sump design with or without trap is ultimately accepted, the sumps must be more regularly maintained than previously done.

Item #2: Trees and Plantings

- 2A. Species Selection.** Primary selection criteria for trees/plantings selection include shade and/or stormwater capture requirements, as well as selecting a native species that is salt and pH tolerant with a porous pavement-friendly seed/fruit (if necessary). These criteria were met at City Lot 21 after some iteration. This process will be streamlined with the City Arborist.
- 2B. Temporary Maintenance.** As noted in the standard tree pit detail for City Lot 21, trees were to be temporarily irrigated by the contractor and initially pruned (if necessary) per City standards. Contractors should be made aware of this throughout construction and particularly after tree installation. The City Arborist will handle maintenance beyond these requirements.

Further Action Needed: Integrate the City Arborist into the design-construction process as necessary to streamline species selection and monitor construction means and methods and temporary maintenance. The Arborist must inspect all tree stock prior to installation.

Item #3: Subsurface Materials

- 3A. Infiltration Bed Stone Availability.** Washed NYSDOT No. 3 stone was specified; however, local quarries typically do not stock No. 3 stone. Permission was given to use No. 3A stone as an alternative; however, the quarry used could not meet the wash-loss requirement, and washed No. 2 stone was ultimately used. Further investigation revealed that other quarries can meet the wash-loss requirement with unwashed No. 3A stone; in addition, washing of stockpiled stone can be completed. In the future, only NYSDOT No. 3A stone will be accepted.
- 3B. CU-Soil Structural Handling/Acceptance.** The initial material submittal had multiple items in conflict with respect to the CU-Soil specification, including a higher stone-to-soil ratio, lower moisture content, higher percent sand, lower percent clay, higher pH, and the use of limestone for aggregate. After consultation with CU-Soil experts, all items except the stone-to-soil ratio can be adjusted on a project-specific basis dependent on climate and tree species. The stone-to-soil ratio range specified is not adjustable and must be verified by the material submittal and by testing the gradation of the field stockpile if requested by the Engineer. In addition, contractors must be reminded to take appropriate care of the CU-Soil stockpile prior to installation, including remoistening and providing adequate cover.

Item #4: Paving Materials

- 4A. Porous Paver Pattern and Edge Termination.** The pattern for porous pavers was not specified and consequently, the City Lot 21 pavers were laid in a basic straight pattern. Consequently, edge terminations were made such that small widths or “slivers” of pavers abutted the edging, creating an unfinished appearance. Also, the top asphalt course was paved over the porous paver edging with little effort given to providing a smooth, finished transition to the pavers.

Further Action Needed: The porous paver and asphalt specifications will be revised in future applications to address these concerns. Paver and adjacent asphalt pavement placement should be closely monitored and inspected prior to acceptance.

Project Metrics Summary

Bid Price	\$179,300
Change Order Total	\$8,746
Total Project Cost	\$188,046
Total Estimated CSO Reduction	328,000 gallons
Cost per CSO Reduction	\$0.57 per gallon



Project ID/Name: C-09 County Parking Lot B at S. Townsend Street

Proj Address: 431 Harrison St & Townsend Street

Parcel Owner: County of Onondaga

Green Technology

Bioretention

Impervious Area (SF)

53,940

Green Infrastructure Area (SF)

3,800

Annual Capture (gal)

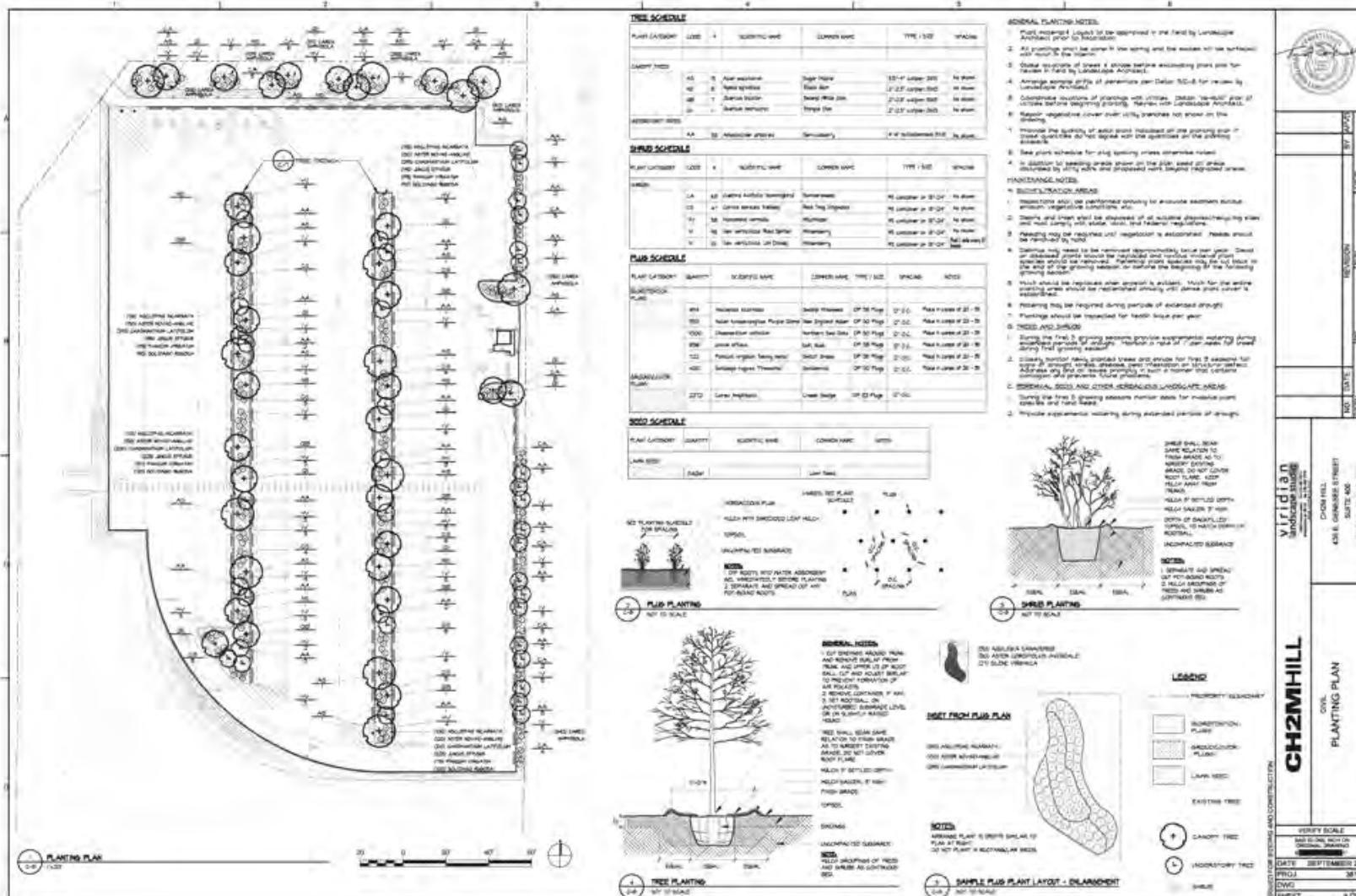
949,983

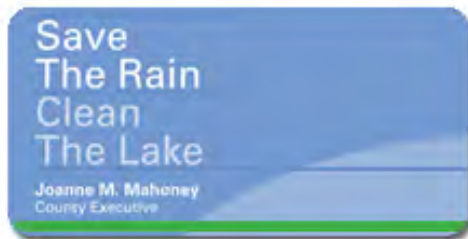
Total

53,940

3,800

949,983





FACT SHEET

County Parking Lot at South Townsend Street

Project Description: Completed in 2010, the stormwater retrofit project at the County Parking Lot at S. Townsend Street involved repaving the lot with new asphalt pavement, restriping lanes, and installing two 8-foot wide tree infiltration trenches. The redesigned lot contains 163 parking stalls, six of which are Americans with Disabilities Act (ADA) accessible. The tree trenches feature the use of structural soil to provide adequate rooting volume for the proposed trees and additional native vegetation.

The two tree trenches are designed to capture and infiltrate the surface runoff from the repaved asphalt lot. Runoff enters the tree trenches, providing irrigation for the trees and additional vegetation before eventually infiltrating into the ground below the trench. The infiltration trench design features overflow control measures to prevent localized flooding and oversaturation of the planting/structural soils. This project is expected to capture approximately 975,000 gallons of stormwater per year from the lot and adjacent pavement areas.

Project:	Townsend St Parking Lot
Project Owner:	County of Onondaga
GI Technology:	Infiltration Trench
Project Location:	431 Harrison St. & Townsend St.
Sewershed:	Clinton
Capture Area:	55,000 square ft
Run-off Reduction:	975,000 gallons/yr
Year Completed:	2010
Construction Cost:	\$342,000



**Townsend Street Parking Lot before the
stormwater retrofit project**



**Townsend Street Parking Lot after the
stormwater retrofit project**

Version 8/19/2011

Green Infrastructure Project Completion Report

Project C-09: S. Townsend Street Parking Lot

PREPARED FOR: City-County Green Infrastructure Program Working Group
PREPARED BY: CH2M HILL
DATE: November 2011

The purpose of this memorandum is to document a summary of the important information noted during the design and construction of the S. Townsend Street Parking Lot green infrastructure project.

Item #1: Stormwater Details and Specifications

- 1A. Catch Basin Tie-in.** During design, the City requested that the tree trench relief pipe be connected to the lateral downstream of the street catch basin, in lieu of the catch basin itself, in case the catch basin is not cleaned regularly. However, the design team convinced the City that this practice was not favorable because connecting to a downstream lateral does not provide any means for observation or maintenance, has inferior hydraulic performance, and requires a large road cut. The design team believes this is the best practice for both the City and County and should be utilized on all projects.

Item #2: Paving Materials

- 2A. Paving Temperature Requirements.** This project was constructed late in the paving calendar and, as was known at the time of design, the availability of paving materials is contingent on weather (temperature) and whether local batch plants are open. While the top pavement course of the parking lot could have been paved, temperatures were lower than required by specification, and the contractor requested permission in writing to proceed with construction out of specification. The project team determined that granting permission to proceed out of specification in writing would provide the contractor a basis for claiming the warranty for the pavement and other construction was out of specification. Consequently, the top pavement course was deferred to spring construction.

Project Metrics Summary

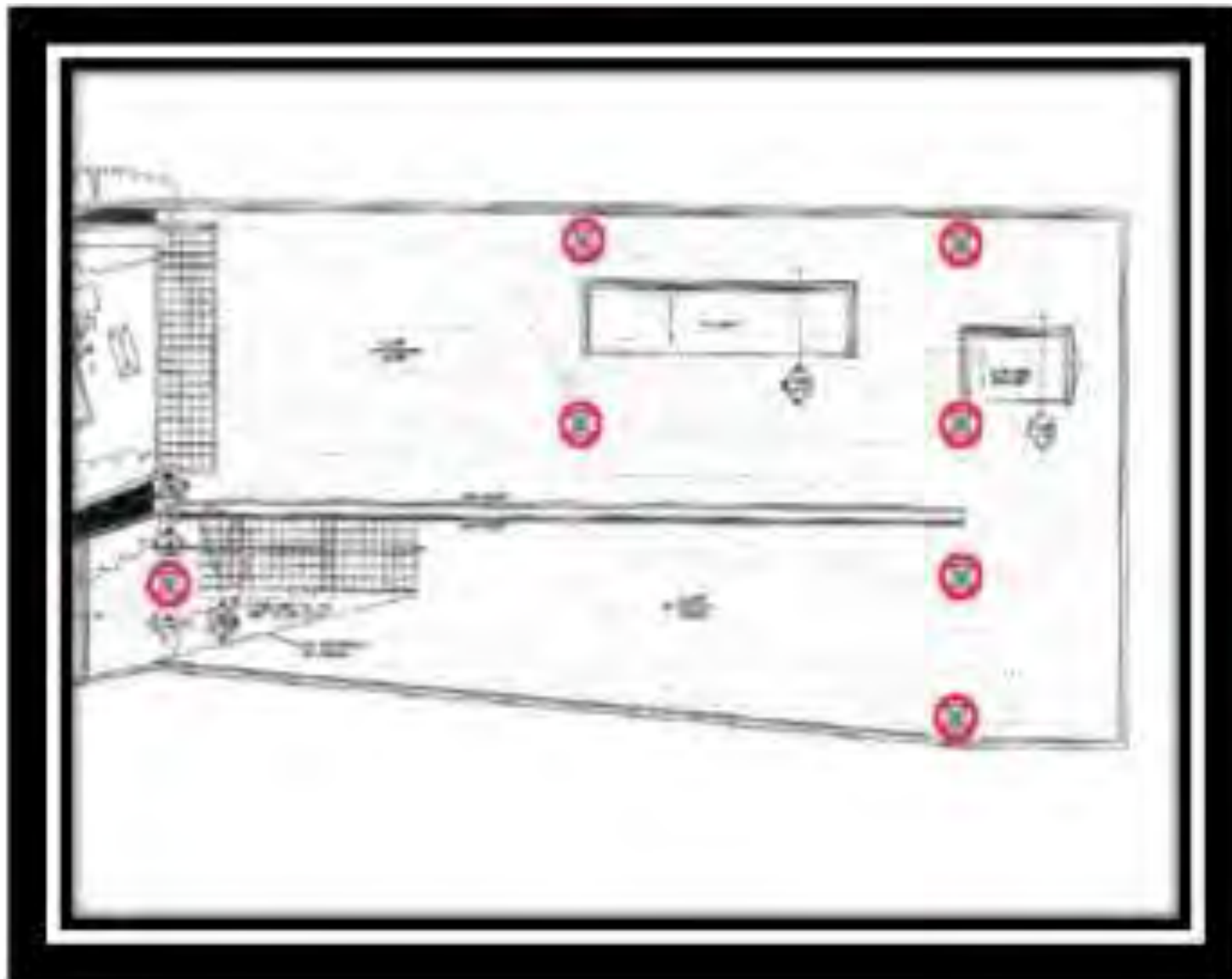
Bid Price	\$342,000
Change Order Total	\$0
Total Project Cost	\$342,000
Total Estimated CSO Reduction	692,000 gallons
Cost per CSO Reduction	\$0.49 per gallon



Project ID/Name: C-20 Green Roof at Center of Excellence

Proj Address: 727 E. Washington Street

Parcel Owner: Syracuse
University



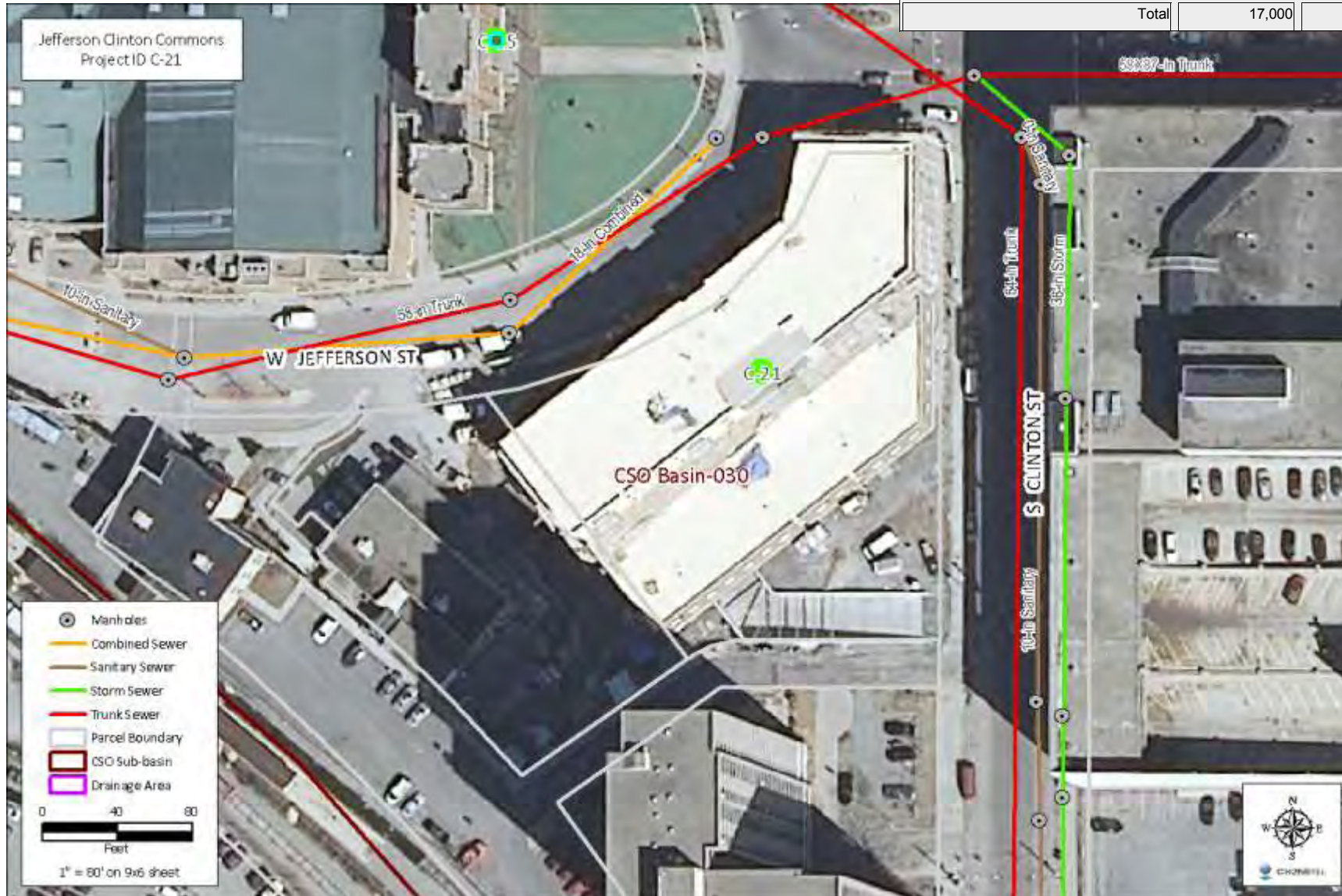


Project ID/Name: C-21 GIF#04 Jefferson Clinton Commons

Proj Address: 500 S. Clinton Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	2,000	2,000	35,223
Pervious Pavement Parking Lot	15,000	15,000	264,177
Total	17,000	17,000	299,400



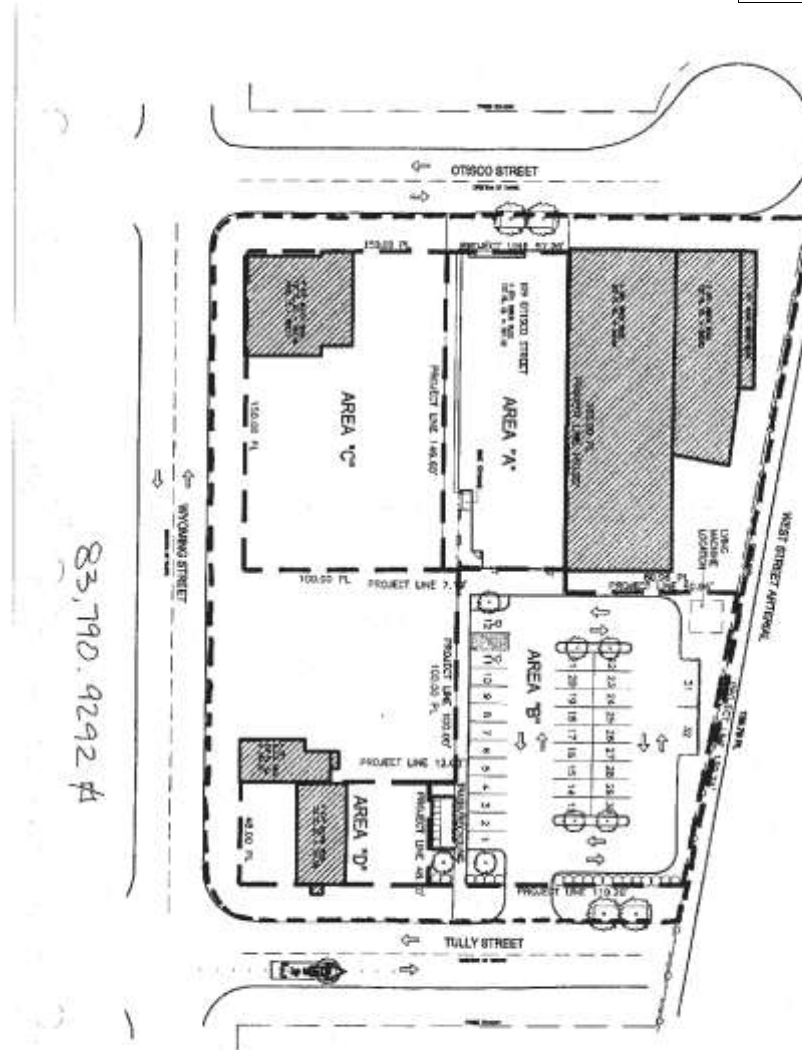


Project ID/Name: C-31 GIF#10 Lincoln Supply

Proj Address: 109 Otisco Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	27,000	25,028	475,519
Total	27,000	25,028	475,519





Project:	Lincoln Building
Project Owner:	Private
GI Technology:	Bio-retention, Tree Planters, and Infiltration Trenches
Project Location:	109 Otisco Street
Project Owner:	Onondaga County
Sewer shed:	Clinton
Capture Area:	27,000 Square Feet
Run-off Reduction:	476,000 Gallons/Year
Year Completed:	2010
GIF Funding:	\$78,000

FACT SHEET

Near Westside Initiative – Lincoln Building

Project Description: The Lincoln Building site, located near the intersection of Otisco and Wyoming Streets, was renovated to incorporate green infrastructure components into a comprehensive storm water management system. The main feature of the project is the installation of a dry well system (cistern) to capture storm water run-off on site. Additionally, the construction of a bio-retention garden, tree planter boxes and infiltration trenches were installed adjacent to sidewalk areas to provide further capture.

The design also featured pretreatment technology, including engineered soil and native and ornamental tree and shrub plantings.

The total captured impervious area is 27,000 square feet. Approximately 93% of the area is directly captured within the newly landscaped area. The project was designed to capture and infiltrate at least one inch of storm water runoff from the site, resulting in a total estimated annual storm water runoff volume of 476,000 gallons.



Bio-retention parking lot facing east



Bio-retention area - parking lot view



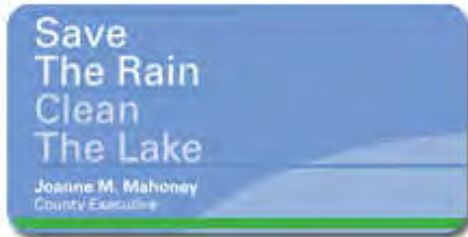
Project ID/Name: C-51 GIF#01 The Spa at 500 W. Onondaga

Proj Address: 500 W. Onondaga St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	7,500	7,500	132,088
Bioretention	1,000	1,000	17,611
Total	8,500	8,500	149,699





FACT SHEET

The Spa at 500 W. Onondaga

Project Description: The Spa at 500 West Onondaga project was one of the first applications for funding awarded under the Green Improvement Fund. The project, located on the Near West Side, involved replacing an asphalt parking lot with an extensive bio-retention and landscaping system to mitigate storm water run-off from the property.

The new parking lot features several bio-retention areas along the perimeter and center sections of the lot. Enhanced landscaping, including shrub and tree plantings, was also used as design features on the lot. The project will capture 150,000 gallons annually.

Project:	The Spa at 500 West Onondaga Street
Project Owner:	Private
GI Technology:	Bio-retention
Project Location:	500 W. Onondaga
Sewershed:	Clinton
Capture Area:	8,500 square ft
Run-off Reduction:	150,000 gallons/yr
Year Completed:	2010
GIF Award:	\$60,000



Tree planting in the new parking lot



Spa parking lot before renovation



Spa parking lot after renovation



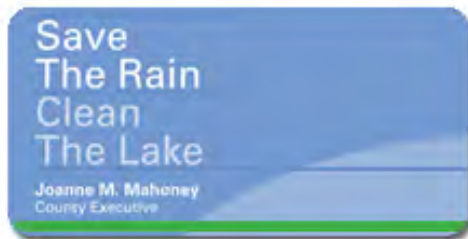
Project ID/Name: C-52 GIF#06 Green Roof at King & King Architects

Proj Address: 358 W. Jefferson St.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	11,200	11,200	197,252
Total	11,200	11,200	197,252





FACT SHEET

King + King Architects

Project Description: As part of a complete building renovation for the new King & King Architects building located at the northeastern corner of West Street and West Jefferson Street in downtown Syracuse, a partial green roof system was installed. The project integrated a comprehensive vegetated roof system for approximately 11,200 square feet of roof surface on the property. The building required the installation of a thermoplastic polyolefin (TPO) roofing layer with a structural reinforcement system to allow green roof loading.

The new green roof installation covers approximately 30% of the actual roof area, while capturing 100% of the roof run-off that previously drained to the combined sewer system. The impervious portion of the new roof drains into green space located on the north side of the building, which has been re-established with native and adaptive wildflowers and grasses to promote storm water infiltration. The King + King building have been certified as LEED Platinum facility by the U.S. Green Building Council and is the first facility in Onondaga County to achieve this status.

Project:	Green Roof at King + King Architects
Project Owner:	Private
GI Technology:	Green Roof
Project Location:	358 W. Jefferson St.
Project Owner:	Onondaga County
Sewershed:	Clinton
Capture Area:	11,200 Square Feet
Run-off Reduction:	197,000 Gallons/Year
Year Completed:	2010
GIF Funding:	\$100,000



View of roof top before
(solar panels are part of a separate project)



Rooftop with green roof installed

Version 7/28/2011

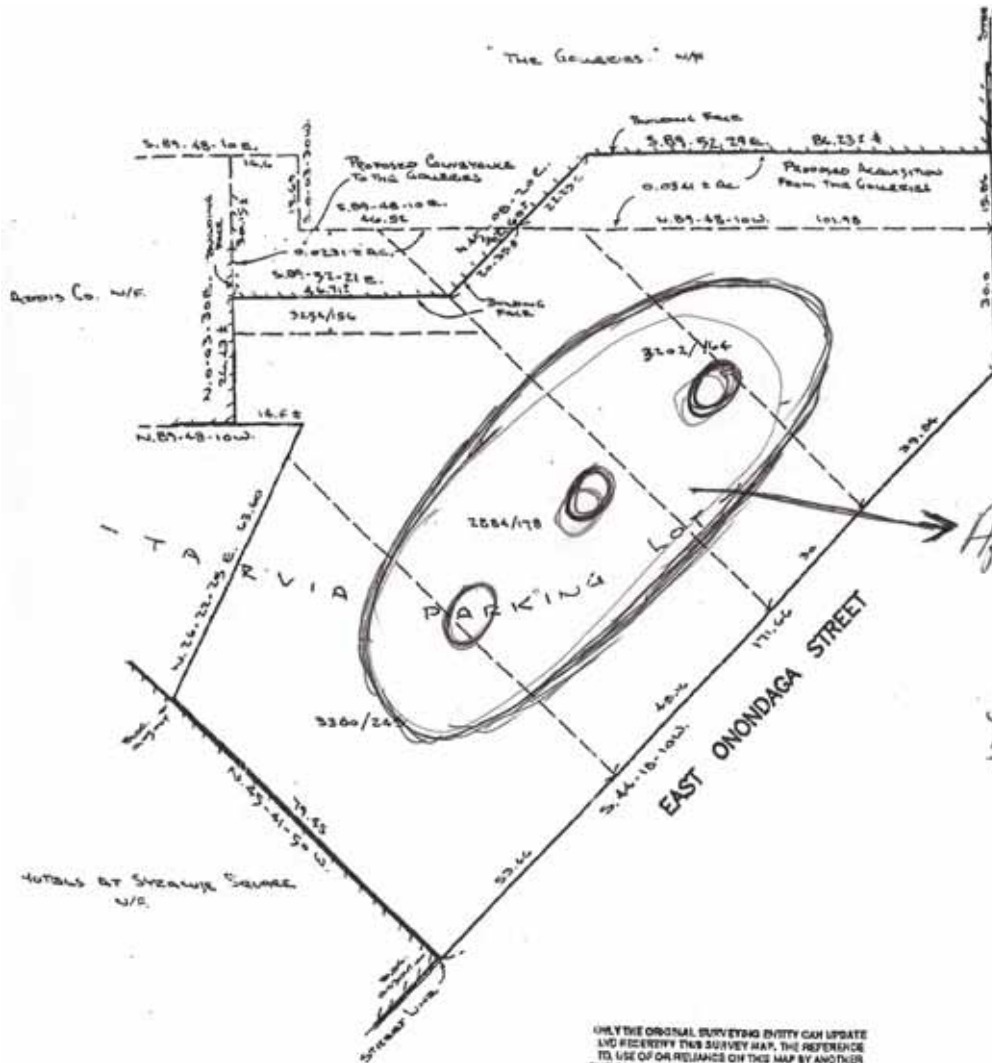


Project ID/Name: C-56 GIF#012 The Galleries Office Towers

Proj Address: 147 E. Onondaga St.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	20,000	20,000	352,000
Total	20,000	20,000	352,000
Annual CSO Reduction (gal)			249,920



SOUTH WARREN STREET

To: David Colbert
From: Mariann Hooper
Date: 9/26/10

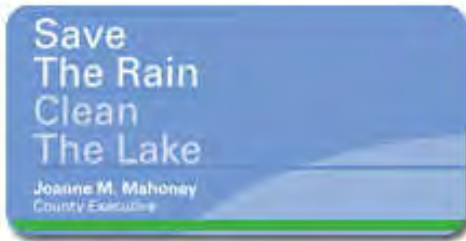
THE UNDERSIGNED CERTIFIES THAT THIS MAP WAS MADE FROM AN ACTUAL SURVEY DATED HERE BELOW. VOID WITHOUT RED INK SIGNATURE OR EXPOSED SEAL OF SURVEYOR.

OCT. 15, 1991 *Joshua Cottrell*

Approximate Area of Filtration System with 2-3 catch basins, connecting HDPE perforated pipe with overflow connecting to City storm system.

AREA WITHIN THICK OUTLINE = 0.4011 ± ACRES

Proposed Parcel	
PART OF BLOCK 116 CITY OF SYRACUSE, N. Y.	
I.D.: 100-116-100	FILE:
DATE: 10-11-2010	BY: 10-11-2010



FACT SHEET

The Galleries Office Towers

Project Description: The Galleries Office Towers project located at 441 South Salina Street consist of the redevelopment of an existing parking lot for the Galleries of Syracuse.

The project included the installation of three underground infiltration systems on site and regarding of the lot to allow stormwater to enter the underground storage. The lot size is approximately 20,000 square feet that will result in an estimated annual capture of 352,000 gallons.

Due to mild temperatures this winter season, the project was constructed and completed in December.

Project:	Galleries Office Towers
Project Owner:	Private
Project Location:	441 S. Salina Street
Sewershed:	Clinton
GI Technology:	Underground Infiltration System
Capture Area:	20,000 sq. ft.
Run-off Reduction:	352,000 gal/yr
Year Completed:	2011
GIF Award:	\$100,000



Parking Lot (Street View) - After



Parking Lot (Street View) - Before



View of Infiltration Catch Basin

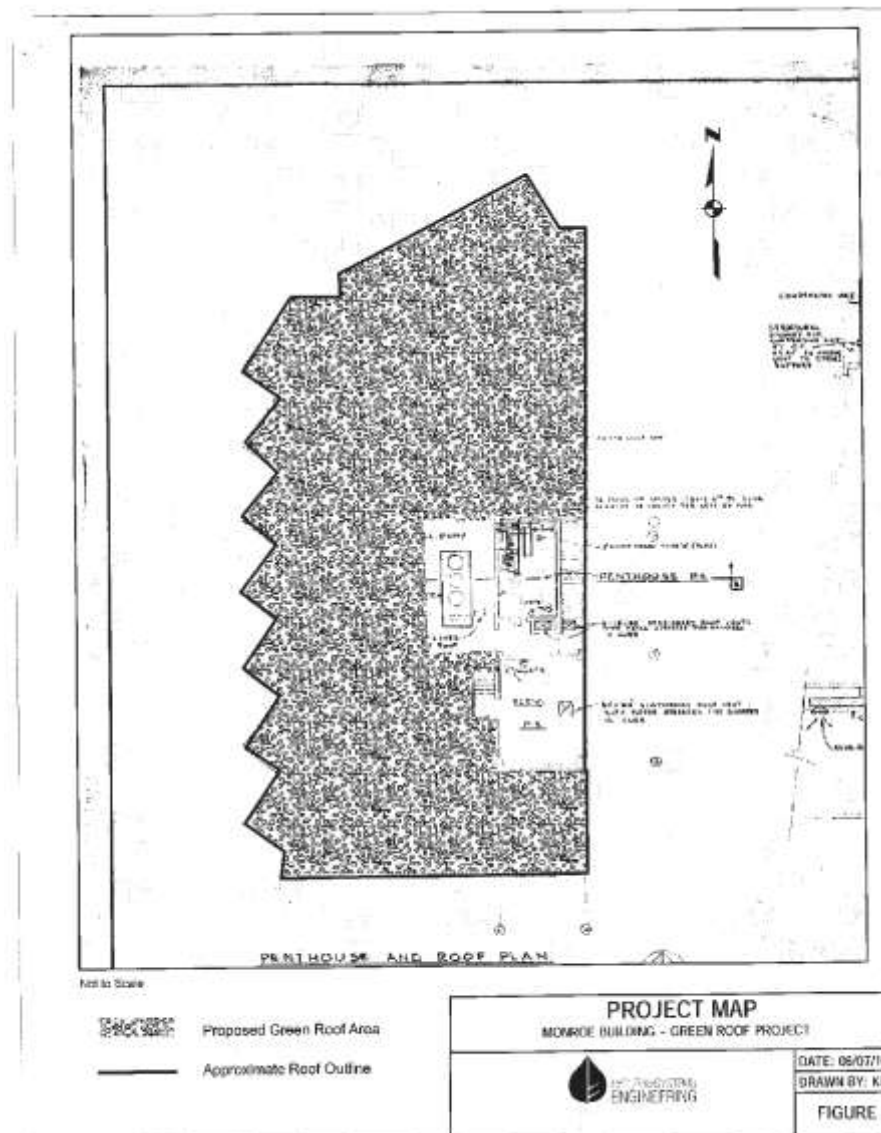


Project ID/Name: C-57 GIF#13 The Monroe Building

Proj Address: 333 E. Washington St.

Parcel Owner: Jeffery DeRoberts

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	5,200	5,200	91,581
Total	5,200	5,200	91,581





FACT SHEET

Monroe Building Green Roof

Project Description: The green roof project at the Monroe Building will convert approximately 5,200 square feet of roof top surface to a vegetative roof system comprised of a sedum and chive mixture. This roof is expected to capture at least one inch of precipitation in a given storm or sequence of storms, preventing it from entering the sewer.

The project, located at 333 E. Onondaga Street, will be one of the first 'green' roof projects constructed downtown and will also include a "green jobs" component. SUNY ESF will partner with the project to incorporate participants in the Green Infrastructure Training Program for education and maintenance of the roof.

Project:	Monroe Building
Project Owner:	Private
GI Technology:	Green Roof
Project Location:	333 E. Onondaga St.
Sewershed:	Clinton
Capture Area:	5,200 square ft
Run-off Reduction:	91,581 gallons/yr
Year Completed:	2011
GIF Funding:	\$92,832



Monroe Building roof before the installation of the green roof

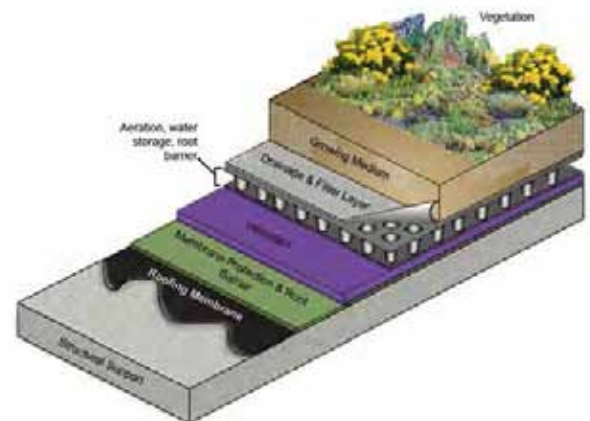
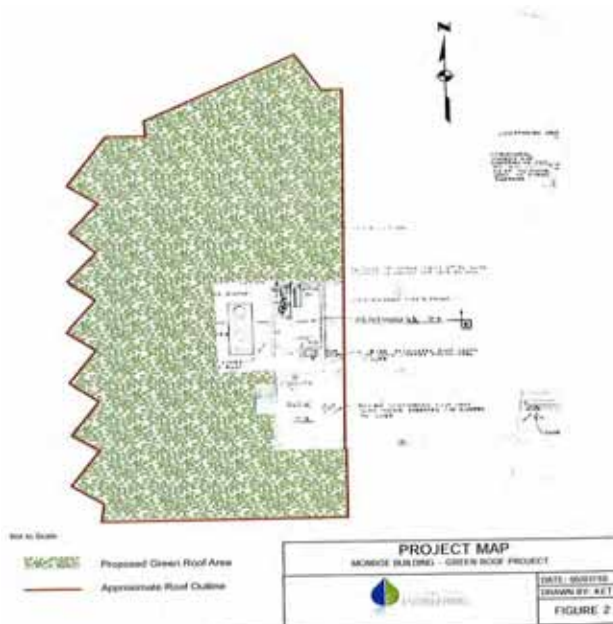


Diagram of green roof implementation



Proposed green roof for Monroe Building



Examples of green roof implementation

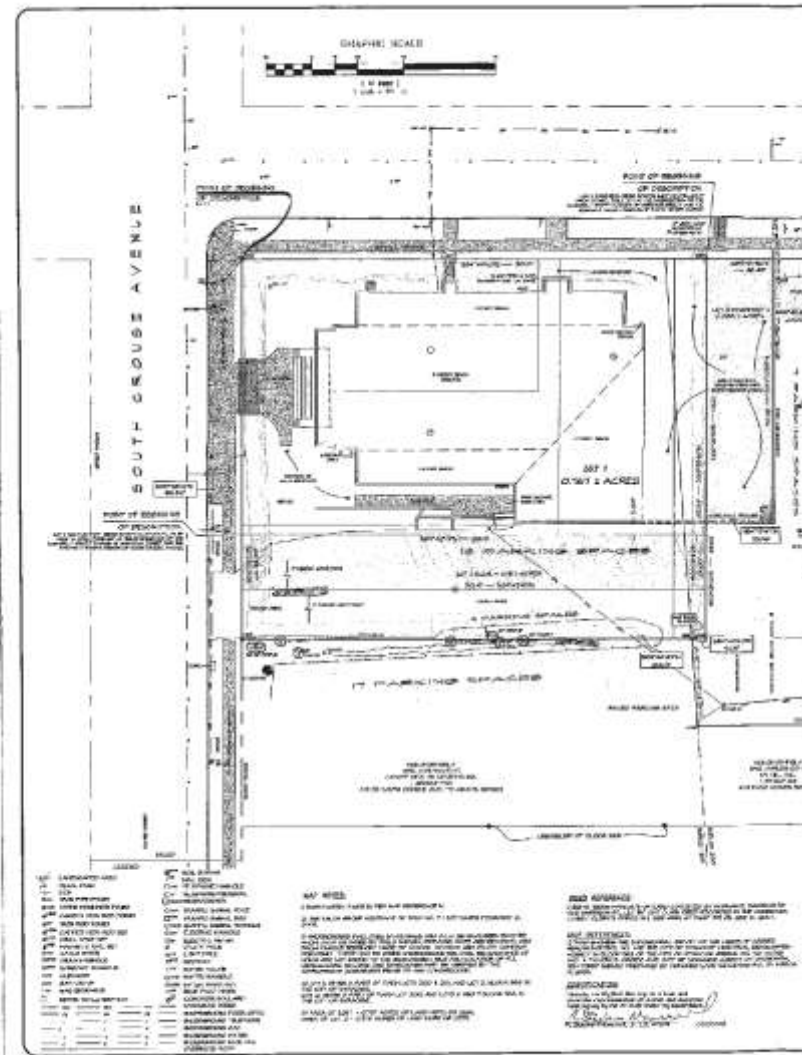


Project ID/Name: C-58 GIF#07 Hotel Skyler

Proj Address: 609 S. Crouse Ave.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	9,800	9,800	172,596
Total	9,800	9,800	172,596





FACT SHEET

Hotel Skyler

Project Description: The green infrastructure project at Hotel Skyler, located near the intersection of South Crouse Avenue and Harrison Street, comprised of the renovations of two separate areas on site to reduce and reuse storm water runoff. The first renovation involved the conversion of an existing 9,800 square feet asphalt parking lot to a porous lot utilizing brick pavers with structural soils and subsurface infiltration.

The other project included the installation of two dry wells (also called cisterns) to capture storm water that may be used in place of potable water for flushing of toilets in the facility. The project was designed to store or infiltrate at least one inch of rainfall, which will allow the site to capture an estimated total annual storm water runoff of 173,000 gallons.

Project:	Hotel Skyler
Project Owner:	Private
GI Technology:	Porous pavement, Cistern
Project Location:	609 South Crouse Ave
Project Owner:	Onondaga County
Sewer shed:	Clinton
Capture Area:	9,800 Square Feet
Run-off Reduction:	173,000 Gallons/Year
Year Completed:	2010
GIF Funding:	\$100,000



Parking Lot – Main Entrance



View from S. Crouse Ave.



View from Building

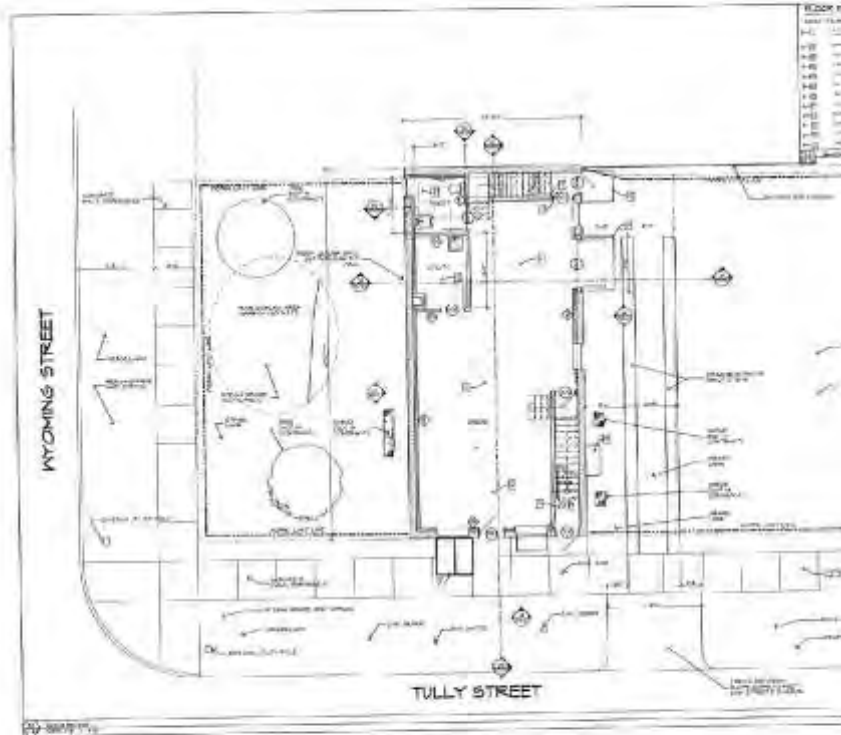


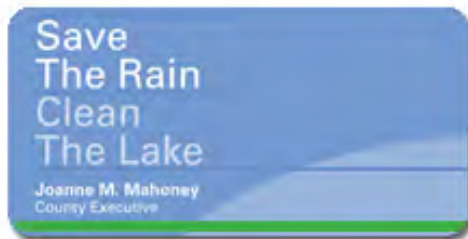
Project ID/Name: C-59 GIF#15 Near West Side Initiative

Proj Address: 109-115 Otisco & Wyoming St

Parcel Owner:

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Vegetated Infiltration Basin	5,400	5,400	95,103
Pervious Pavement Sidewalk	900	900	15,850
Bioretention	1,100	1,100	19,373
Total	7,400	7,400	130,326





FACT SHEET

Near Westside Initiative – Artist Studio and Apartment

Project Description: In 2010 a green infrastructure project at the Near Westside Artist Studio and Apartment, located near the intersection of Tully and Wyoming Streets, involved the conversion of 7,400 square feet of impervious area to pervious area. The project transformed 900 square feet of asphalt and concrete sidewalks into porous concrete sidewalks, which included a subsurface infiltration layer. A rain garden was installed on the east side of the property to reduce impervious area and provide temporary storage for runoff from the 1,100 square foot roof. Lastly, a vegetated infiltration basin was constructed to convert an existing 5,400 square feet of impervious asphalt into pervious landscaping with new tree and shrub plantings. All improvements promoted the infiltration of storm water runoff. The project was designed to capture and infiltrate at least one inch of rain from the roof as well as surrounding impervious areas, resulting in a total estimated annual storm water capture of 130,000 gallons.



Rain Garden

Project:	Artist Studio and Apartment
Project Owner:	Private
GI Technology:	Porous Pavement, Rain Garden, and Infiltration Basin
Project Location:	Tully and Wyoming Streets
Project Owner:	Onondaga County
Sewer shed:	Clinton
Capture Area:	7,400 Square Feet
Run-off Reduction:	130,000 Gallons/Year
Year Completed:	2010
GIF Funding:	\$22,769



Site conditions prior to renovation



Restored site post construction



Project ID/Name: C-93 Seymour School Rain Garden

Proj Address: 108 Shonnard Street

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	1,000	000	10,000
Total	1,000	0	10,000
Annual CSO Reduction (gal)			7,100





Project ID/Name: CW-01 Creekwalk: Jefferson to Walton Streets

Proj Address: Creekwalk: Jefferson to Walton Streets

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	1,200	1,200	21,134
Pervious Pavement Parking Lot	6,450	6,450	113,596
Total	7,650	7,650	134,730





FACT SHEET

Creekwalk: West Jefferson to Walton Streets

Project:	Creekwalk
Project Owner:	City of Syracuse
Project Location:	Creekwalk: Jefferson to Walton
Sewershed:	Clinton/Lower MIS
GI Technology:	Porous Pavement, Bioretention
Capture Area:	7,000 sq. ft.
Annual Capture:	135,000 gal/yr
Year Completed:	2010
Construction Cost:	\$63,000
Prime Contractor:	M.A. Bongiovanni, Inc.

Project Description: This phase of the greening of the Syracuse Creekwalk project involved multiple green stormwater infrastructure features along the eastern bank of the Onondaga Creek, between the start of the Creekwalk at West Jefferson Street through Walton Street. The green design included a parking lot on West Jefferson Street constructed entirely with porous asphalt, as well as a parking lot on Walton Street that incorporated a porous asphalt strip for collecting stormwater. In addition, a Flexi-pave flexible porous walkway, as well as a bioretention garden, was constructed for collection, storage, and infiltration of stormwater runoff from the Creekwalk and adjacent impervious surfaces.

Most notably, this portion of the project uses four different green infrastructure technologies within the first block of the Creekwalk. Creekwalk users can observe and interpret all these green features while winding their way along the expansive pathway overlooking the creek.

Background: This is just the first segment of the City's Creekwalk Project, which will create a continuous multi-use trail along Onondaga Creek from the Armory Square district through the shores of Onondaga Lake. The vision for the Syracuse Creekwalk is to reunite recreational opportunities with the City's natural amenities, while also introducing signage to educate the public about the County's green stormwater infrastructure initiatives.



Before



After

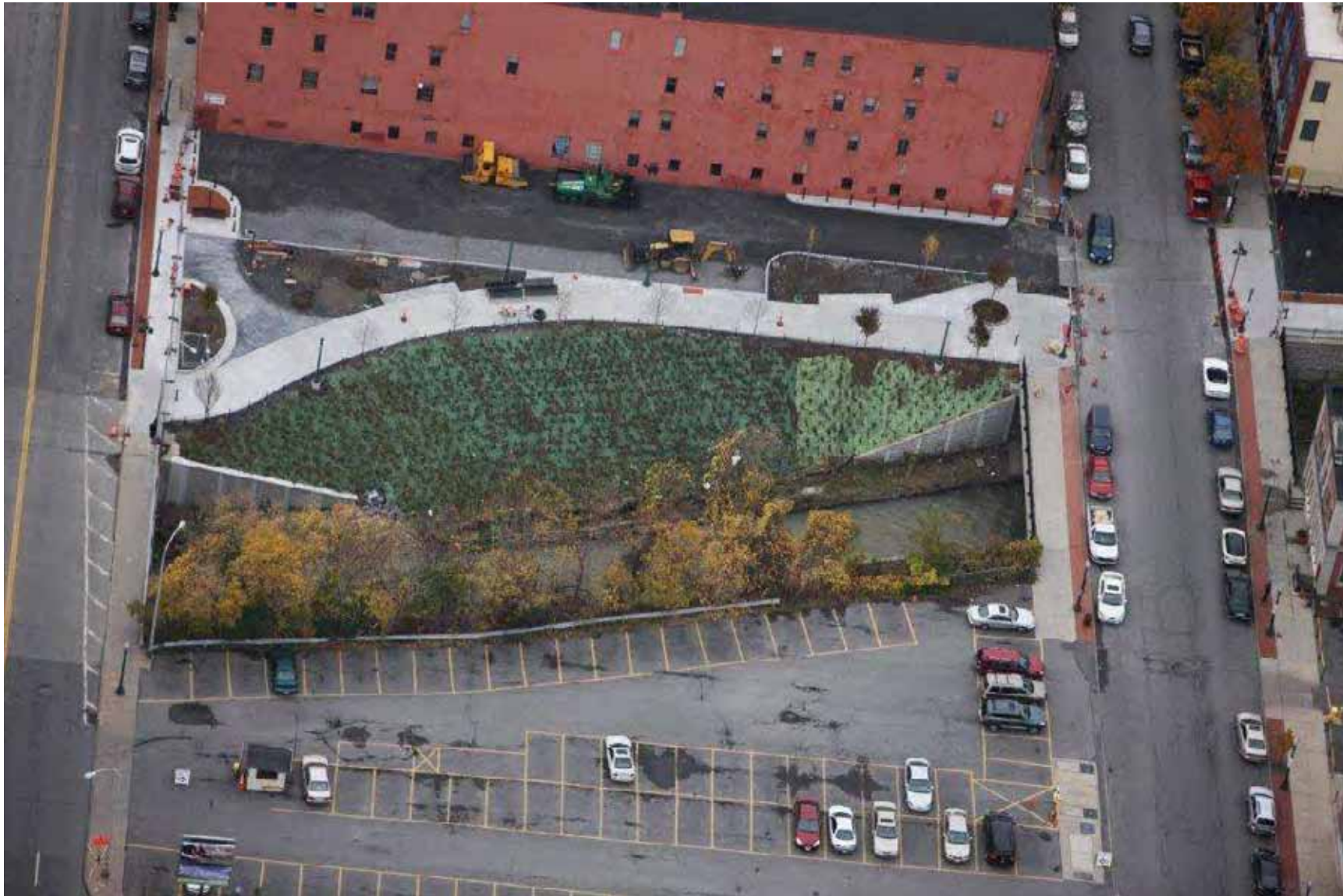


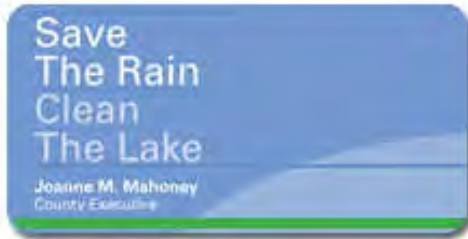
Project ID/Name: CW-02 Creekwalk: Walton to E. Fayette Streets

Proj Address: Creekwalk: Walton to E. Fayette Streets

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	6,780	6,780	119,408
Total	6,780	6,780	119,408





FACT SHEET

Creekwalk: Walton Street to E. Fayette Street

Project Description: This additional phase of the Syracuse Creekwalk project incorporated green infrastructure on a former asphalt parking lot that borders the eastern bank of the Onondaga Creek between Walton Street and East Fayette Street. Green infrastructure introduced in this phase included a porous asphalt strip in the parking lot alongside the creek, overlooking a re-established natural stream bank that was planted with native vegetation to stabilize the slope and prevent erosion. In addition, a section of porous concrete was included on the Creekwalk trail turnoff onto East Fayette Street. Both technologies will collect stormwater runoff from the trail and adjacent impervious surfaces.

Background: This portion of the green improvements were completed on the second block of the Creekwalk trail, which is intended for walking, cycling, and other recreational pedestrian traffic. This block is just one segment of the City's Creekwalk Project, which will create a continuous multi-use trail along Onondaga Creek from the Armory Square district through the shores of Onondaga Lake. The vision for the Syracuse Creekwalk is to reunite recreational opportunities with the City's natural amenities, while also introducing signage to educate the public about the County's green stormwater infrastructure initiatives.

Project:	Creekwalk
Project Owner:	City of Syracuse
Project Location:	Creekwalk: Walton to East Fayette streets
Sewershed:	Clinton/Lower MIS
GI Technology:	Porous Pavement
Capture Area:	7,000 sq. ft.
Annual Capture:	119,000 gal/yr
Year Completed:	2010
Construction Cost:	\$47,000
Prime Contractor:	M.A. Bongiovanni, Inc.



Before



After

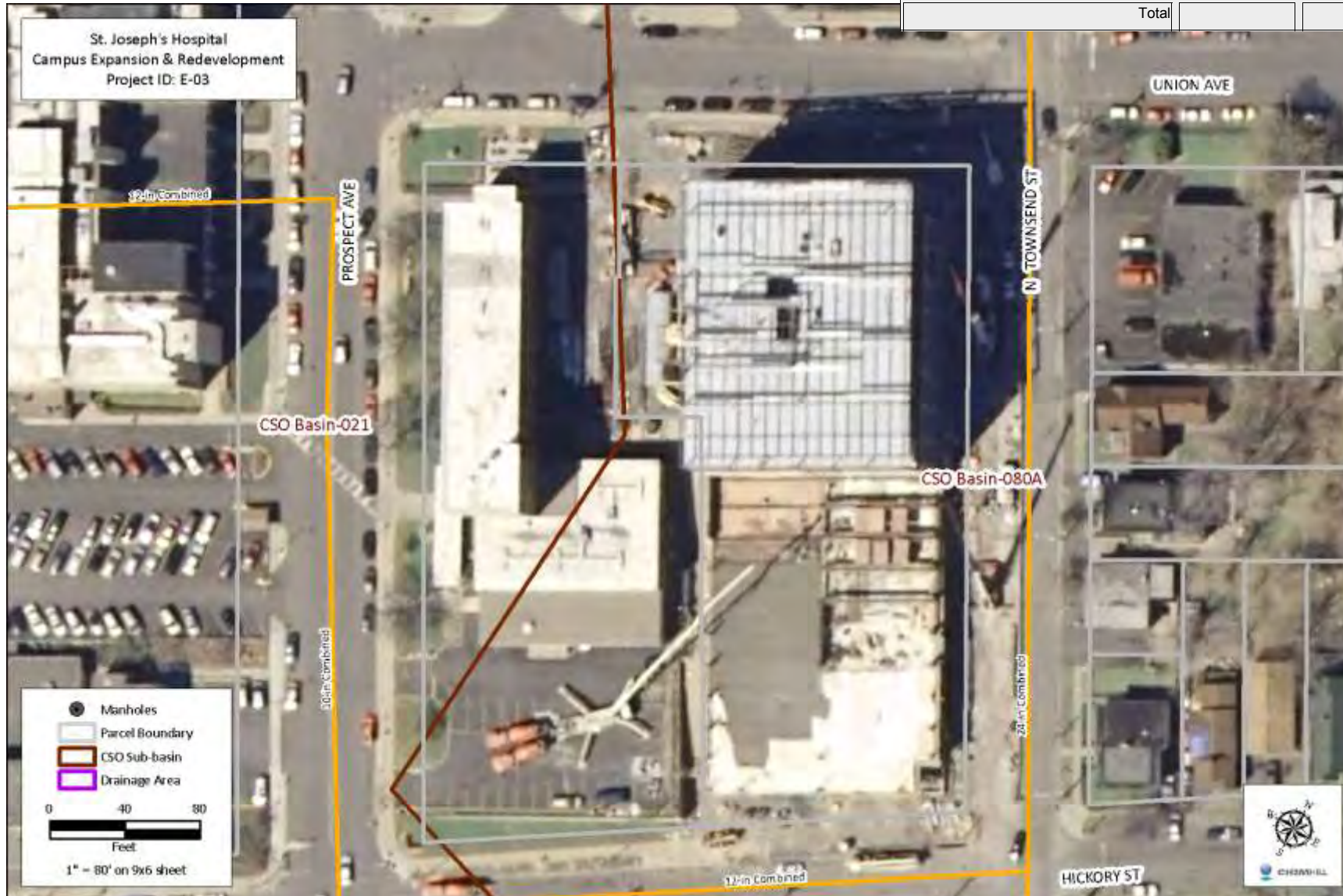


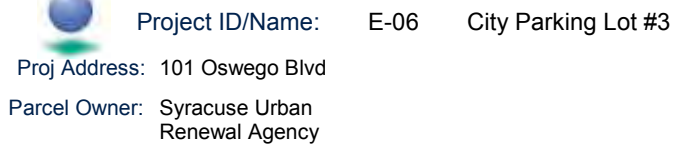
Project ID/Name: E-03 St. Joseph's Hospital Campus Exp and Redvt

Proj Address: 301 Prospect Ave

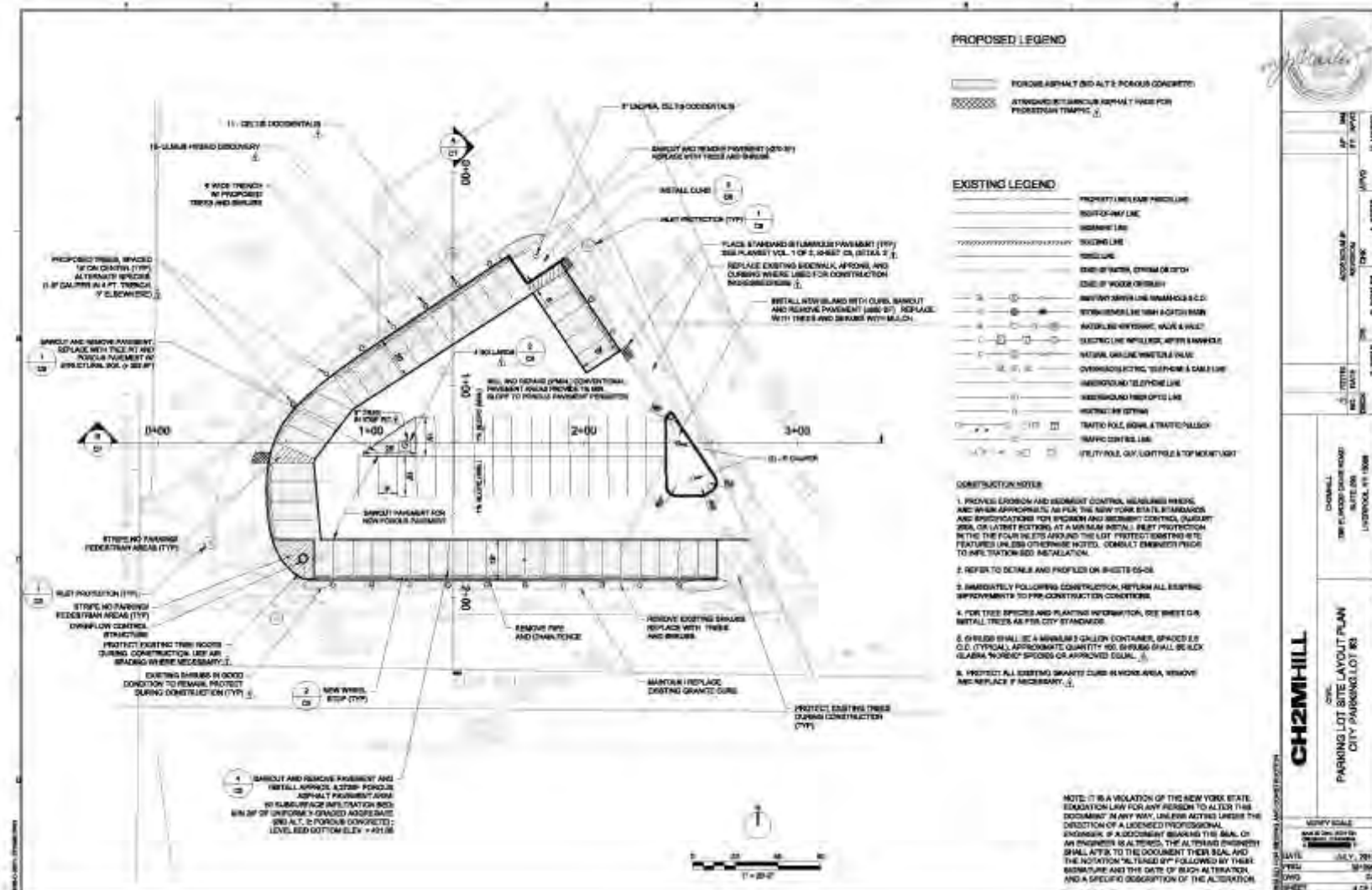
Parcel Owner: St Joseph's
Hospital Health
Center

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention			
Green Roof			
Infiltration Trench			
Total			





Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	50,000	8,700	880,592
Total	50,000	8,700	880,592





FACT SHEET

City Parking Lot #3

Project Description: The stormwater retrofit project at City Parking Lot #3 transformed the existing asphalt parking lot located at the intersection of Erie Boulevard and North Warren Street into a porous parking lot that captures and infiltrates stormwater on-site. The project featured the resurfacing of the parking lot with porous concrete in addition to the installation of a subsurface infiltration trench, structural soils, and new landscape features including 26 new trees planted in the interior of the lot and along the perimeter. Structural soils provide more substantial soil volume for trees, thereby promoting successful tree establishment and future growth.

Designed to capture 1-inch of runoff from the lot and adjacent portions of North Warren Street, James Street, and Oswego Boulevard, the total annual capture at City Parking Lot #3 is approximately 678,000 gallons of stormwater.

Project:	City Parking Lot #3
Project Owner:	Syracuse Urban Renewal Agency
GI Technology:	Porous Pavement, Tree Trench
Project Location:	101 Oswego Blvd.
Project Owner:	Onondaga County
Sewershed:	Erie
Capture Area:	38,500 square feet
Run-off Reduction:	678,000 gallons/yr
Year Completed:	2010
Construction Cost:	\$239,102



Before



After

Green Infrastructure Project Completion Report

Project E-06: City Parking Lot #3

PREPARED FOR: City-County Green Infrastructure Program Working Group
PREPARED BY: CH2M HILL
DATE: November 2011

The purpose of this memorandum is to document a summary of the important information noted during the design and construction of the City Parking Lot #3 green infrastructure project.

Item #1: Stormwater Details and Specifications

- 1A. Inlet Restoration.** Upon punch list walkthrough for substantial completion, the Owner (City) observed that two (2) of the inlets being connected to the infiltration bed were in a deteriorated state, and requested the inlets to be rebuilt and/or restored. Additional mason work was performed by the contractor at no additional cost due to a credit available from other favorable conditions at the site. For future projects involving connections to existing inlets, the inlets should be thoroughly inspected in the City's presence to determine if restoration is required.

Item #2: Porous Concrete Quality Control

- 2A. Test Pad Quality Control.** Per contract specifications, the contractor is required to become certified by the National Ready-Mix Concrete Association (NRMCA) in the construction of porous concrete. While the test pad is intended to be a learning experience for the contractor in the construction of porous concrete, and is part of the certification requirements, it is also a requirement in the contract specifications to provide a visual example to the owner and engineer to ensure the product installed at the project site is of acceptable quality. For this project, due to low quality in the test pad mix batch, and concerns in construction methods, the test pad exhibited locations of poor quality. This was noted in a letter to the contractor from the engineer dated October 18, 2010. While the test pad was rejected, the contractor was allowed to proceed with porous concrete construction at the project site under close inspection by the owner, engineer, and inspector, and thus serve as another "test pad." The corrective measures noted in the letter to the contractor were followed and quality control actions were taken, thus resulting in an acceptable placed product with an acceptable finished surface. If the contractor is being certified construction of porous concrete as part of a project, if possible the construction schedule should provide adequate time for placement of a 2nd test pad if necessary.
- 2B. Cold Weather Placement.** As with most concrete mixes, curing time is critical to the quality and performance of porous concrete. By contract specification, 7 days curing time are required prior to any traffic, and 10 days prior to truck traffic. In addition, unless the concrete is heated, a "curing day" is only acceptable if the average ambient temperature is 50° F or higher. While the contractor did provide 7-days curing time, 3 days of that period did not meet temperature requirements. Additional time was not possible due to the need to re-open the parking lot. As such, the quality of the installation at City Lot #3 will be closely monitored. In the future the contractor's schedule must be closely monitored to ensure adequate curing time is provided.

Project Metrics Summary

Bid Price	\$235,000
Change Order Total	\$4,102
Total Project Cost	\$239,102
Total Estimated CSO Reduction	481,000 gallons
Cost per CSO Reduction	\$0.50 per gallon

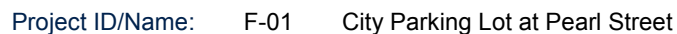


Project ID/Name: E-34 Rain Garden at Henniger High School

Proj Address: 600 Robinson Street

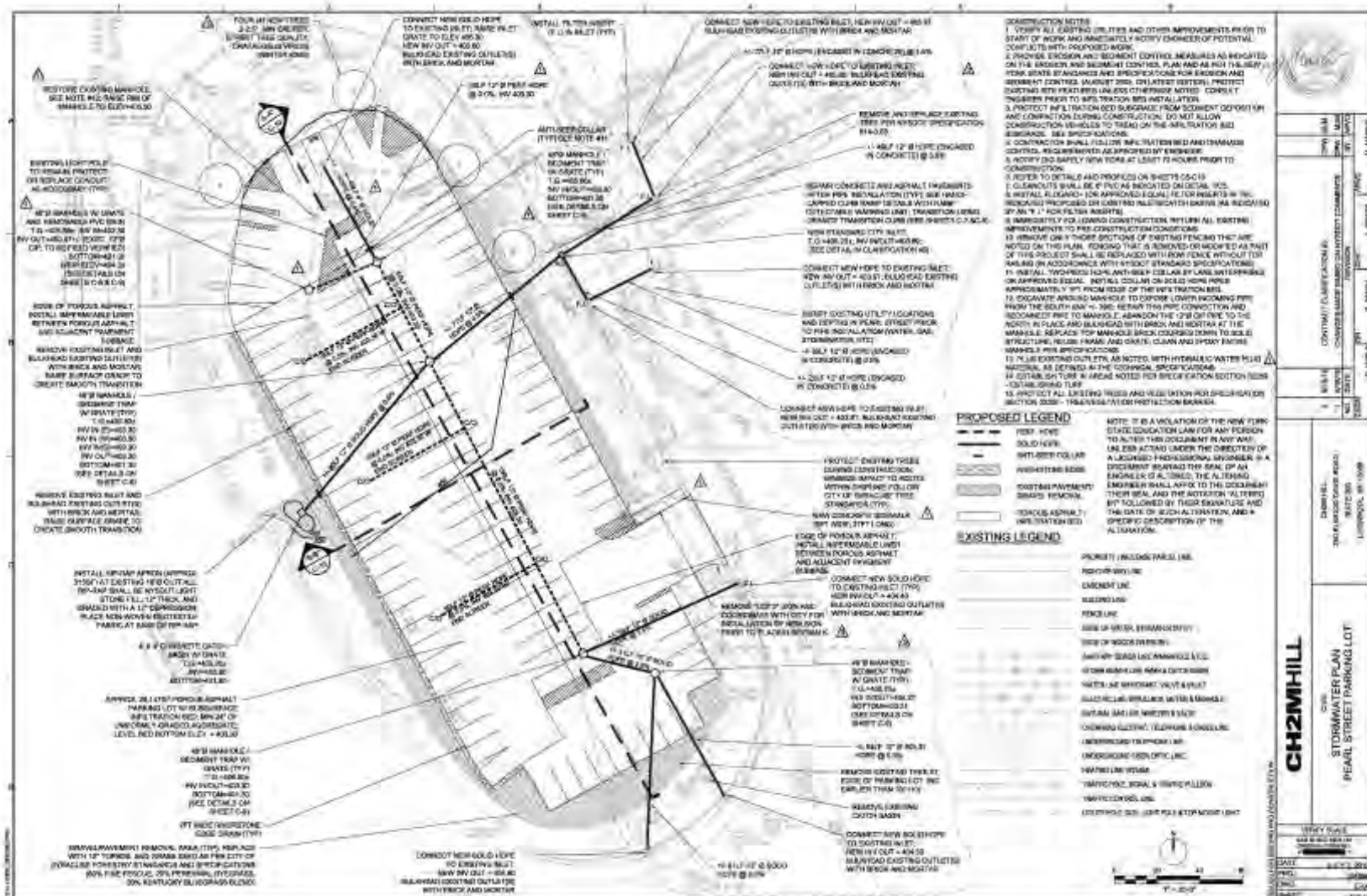
Parcel Owner: City of Syracuse
School District





Parcel Owner: New York State
DOT

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	73,172	25,300	1,288,694
Total	73,172	25,300	1,288,694





FACT SHEET

Pearl Street Parking Lot

Project Description: Completed in September 2010, the Pearl Street Parking Lot Retrofit Project was a renovation of an existing one-acre asphalt/gravel parking lot located at the intersection of Pearl Street and Belden Avenue. The project transformed the existing lot into a partial porous asphalt parking lot featuring 25,000 square feet of subsurface infiltration to capture stormwater runoff. The rest of the parking lot was repaved with standard bituminous pavement sloped toward the porous surface.

The retrofit project was designed to capture and infiltrate at least one inch of stormwater runoff from not only the one-acre lot, but also adjacent areas of Pearl Street, East Belden Avenue, and Interstate-81, resulting in an estimated total runoff capture of 1.3 million gallons of stormwater each year. The design also featured pretreatment technology using inlet filter inserts, a 2-inch wide riverstone border at the edge of the new pavement with stainless steel edging material, and new ornamental tree and shrub plantings around the perimeter of the lot.

Project:	Pearl Street Parking Lot
Project Owner:	New York State Dept of Transportation
GI Technology:	Porous Pavement
Project Location:	400 Block of Pearl St.
Sewershed:	Franklin
Capture Area:	73,000 square feet
Run-off Reduction:	1,286,000 gallons/yr
Year Completed:	2010
Construction Cost:	\$397,000



Pearl Street Parking Lot before the renovation & implementation of green infrastructure



Pearl Street Parking Lot after the renovation & implementation of green

Green Infrastructure Project Completion Report

Project F-01: Pearl Street Parking Lot

PREPARED FOR: City-County Green Infrastructure Program Working Group
PREPARED BY: CH2M HILL
DATE: November 2011

The purpose of this memorandum is to document a summary of the important information noted during the design and construction of the Pearl Street Parking Lot green infrastructure project.

Item #1: Subsurface Utility Location

- 1A. Stormwater Utility Location.** Stormwater utility record mapping was investigated through the NYSDOT, of which indicated record of a stormwater pipe connecting the two inlets on E. Belden Avenue, and were accordingly designed to be connected to the parking lot infiltration bed. This record mapping was not accurate, which required a modification to the contract. In the future, all questionable or conflicting record mapping will be field verified, with the attendance of City DPW if possible. Dye testing should be requested if necessary.
- 1B. Electric/Gas Utility Location.** Requests for electric/gas utility mark-out were either ignored or assigned a low priority, and subsequently not available when the survey was completed. As a consequence, field adjustments were required. For future projects, record mapping contacts at National Grid have been identified for both gas and electric utilities, and should be contacted for record mapping transmittal at or before the time of field work, and prior to design. In addition, National Grid has stated that line relocation and/or replacement is often done in conjunction with large projects, and may require additional coordination by the project team with the benefit of solving utility conflicts where they occur.

Item #2: Unforeseen Conditions

- 2A. Subsurface Structure Demolition.** While excavating the infiltration bed, multiple building foundations were encountered, requiring the use of equipment beyond the scope of typical "unclassified" excavation, incurring additional costs. Subsurface foundations were also found at City Parking Lot #3. The project team has determined that typically the cost of increased subsurface testing with the goal of mapping subsurface structures exceeds the additional costs of having the contractor remove them via field directive. However, record mapping and the environmental assessment should be evaluated at all sites requiring subsurface excavation to determine if subsurface structure mapping is warranted.
- 2B. Existing Pavement Subgrade.** Existing pavement at the parking lot to be replaced with standard pavement, i.e., no infiltration bed or porous pavement, was presumed to have an adequate layer of suitable subbase material. Upon excavation, most subbase material was found to be unsuitable. Future projects with similar circumstances will be more conservatively evaluated with regard to the amount of new subbase required.
- 2C. Owner Requests.** During construction, multiple owner requests were made by the City, including an additional handicap ramp detectable warning unit, new sidewalk, and abandonment of a stormwater receiver manhole in Pearl Street while a street cut was being made - all resulting in contract modifications. In an effort to manage these requests and satisfy the owner (in this case a critical program partner), all owner preferences and requests should be thoroughly vetted prior to the time of bid.

Item #3: Public Outreach

- 3A. Public Notification.** During construction, the owner of a business adjacent to the project raised considerable concern over the effects that construction traffic and parking had on their business. While public reaction will vary widely contingent on the type, location, and demographic of the project, the project team should ensure that adequate notification and/or public meeting(s) are provided by the project team and/or owner/City so that negative public reaction can be minimized (and positive reaction maximized).

Project Metrics Summary

Bid Price	\$367,000
Change Order Total	\$29,772
Total Project Cost	\$396,772
Total Estimated CSO Reduction	913,000 gallons
Cost per CSO Reduction	\$0.43 per gallon



Project ID/Name: H-04 Flexipave at Private Residence #1

Proj Address: NA at W Marcellus St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Flexipave	600	600	10,567
Total	600	600	10,567



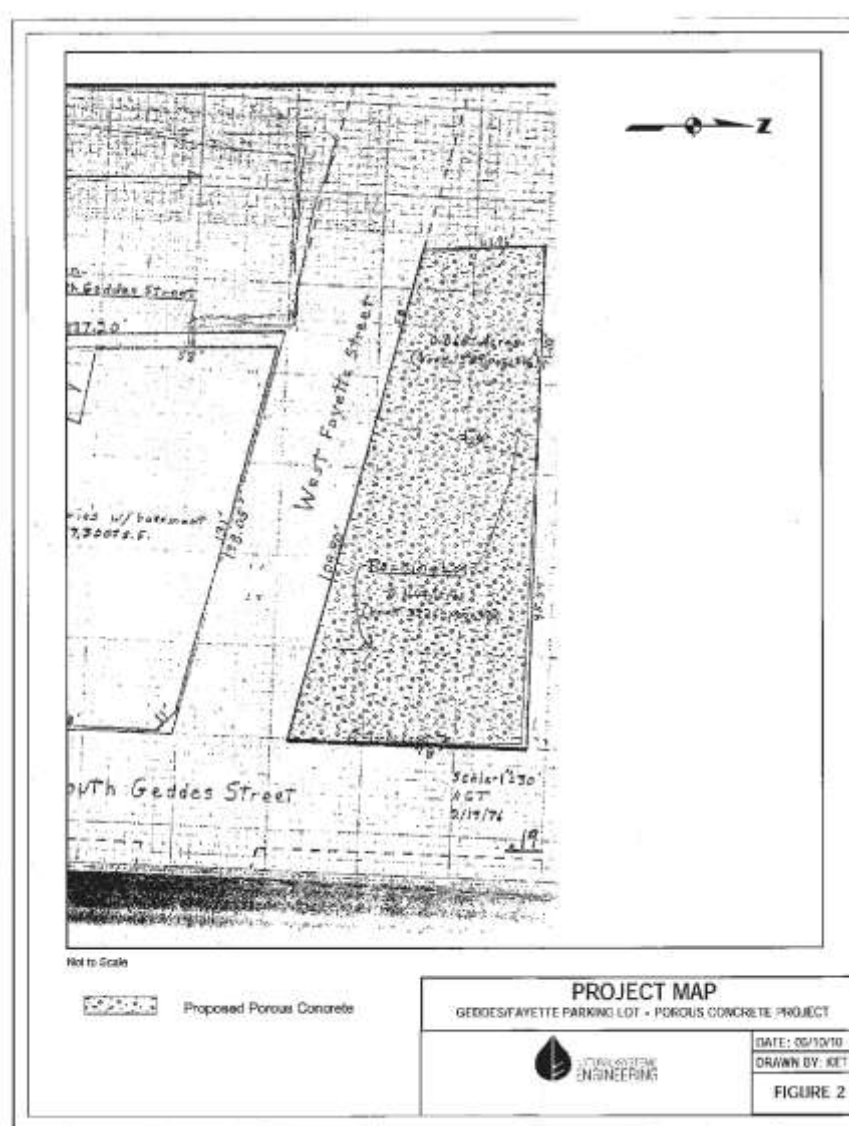


Project ID/Name: H-07 GIF#11 Vibrant Syracuse Spaces

Proj Address: 196 S. Geddes St.

Parcel Owner: Richard Destito

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot	10,000	10,000	176,118
Total	10,000	10,000	176,118





FACT SHEET

Vibrant Syracuse Spaces

Project Description: The Vibrant Syracuse Spaces project located at 196 South Geddes Street is a total conversion of an existing impervious unused lot to a parking lot for Gear Factory Inc.

The project will include the creation of a 10,000 square foot parking lot utilizing porous pavement to capture stormwater run-off. Additionally, the project will include capture in the city right-of-way section of the property. Approximately 4,500 square feet of new sidewalk and right-of-way sections will be added that will include bioretention areas and tree plantings. In total, the Vibrant Spaces project will capture an estimated 440,000 gallons annually.

Another unique aspect of the project is the manner in which it has come to realization. The applicant has worked closely with both the County and the City of Syracuse to maximize the capture potential of the project. Plans for the private property section were fully vetted for maximum capture while the right-of-way work was fully developed after an extensive collaboration with the City of Syracuse Department of Public Works.

Project:	Vibrant Syracuse Spaces
Project Owner:	Private
Project Location:	196 S. Geddes Street
Sewershed:	Harbor Brook
GI Technology:	Porous Pavement, Bioretention
Capture Area:	14,510 sq. ft.
Run-off Reduction:	440,600 gal/yr
Year Completed:	2011
GIF Award:	\$153,618



Porous Concrete Parking Lot (Street View)



Sidewalk Bioretention section

Version 12/01/2011



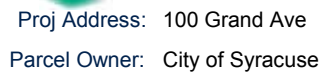
Project ID/Name: H-10 Tree Planting in and around Burnet Park

Proj Address: Harbor Brook Sewershed

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Enhanced Street Trees	5,000	5,000	82,000
Total	5,000	5,000	82,000
Annual CSO Reduction (gal)			58,220





Project ID/Name: H-16 Porous concrete sidewalk on Grand Ave

Grand Avenue Sidewalks
Project ID: H-16

AMY ST
30-in Trunk

DELaware ST
66-in Trunk

0-in Combined

Pervious Pavement Sidewalk

GRAND AVE
20-in Combined

CSO Basin-014

15-in Combined

20-in Combined

0-in Combined

- Manholes
- Combined Sewer
- Sanitary Sewer
- Storm Sewer
- Trunk Sewer
- Parcel Boundary
- CSO Sub-basin
- Drainage Area

0 40 80
Feet
1" = 80' on 9x6 sheet

CITY OF CHESAPEAKE

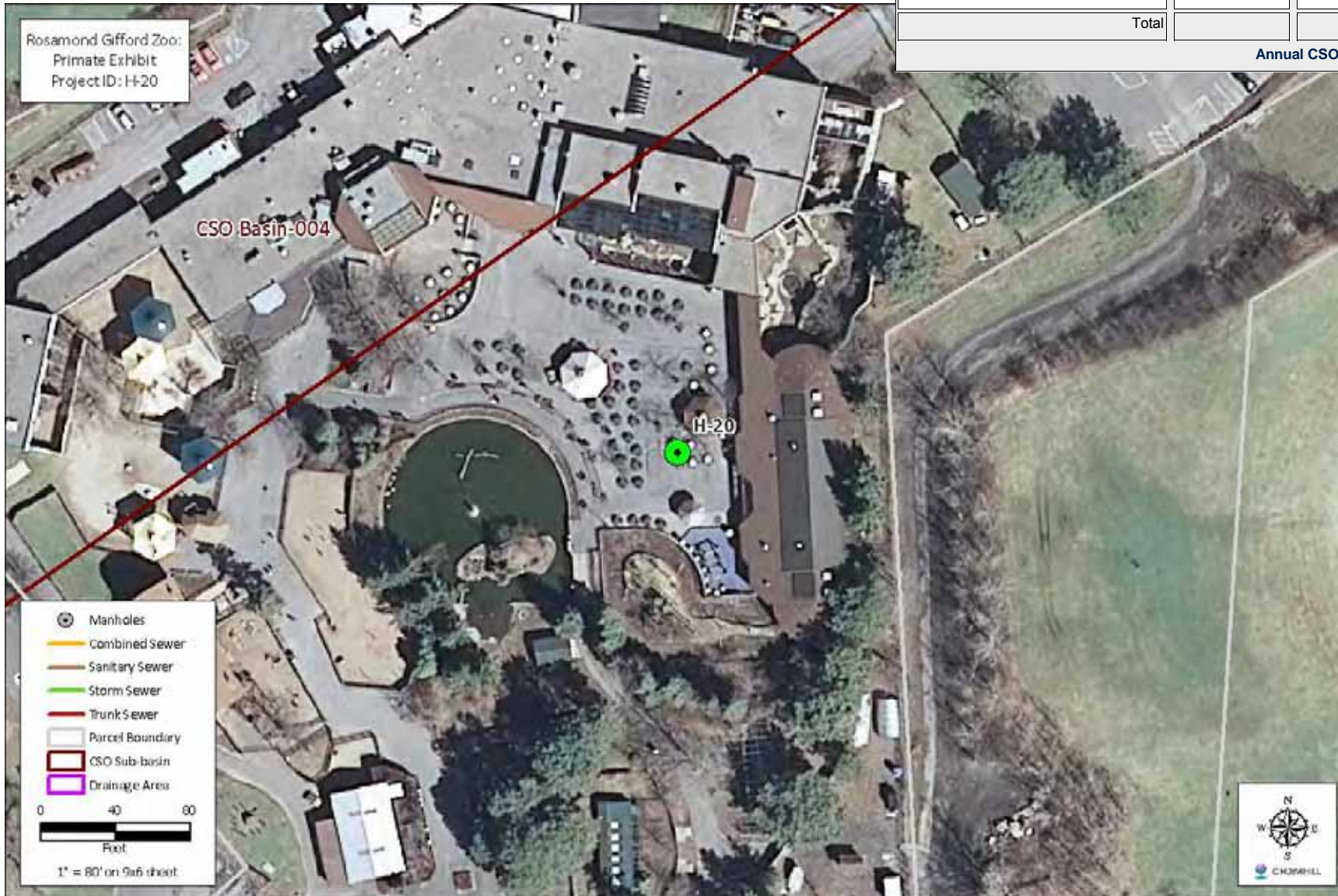


Project ID/Name: H-20 Rosamond Gifford Zoo: Primate Exhibit

Proj Address: One Conservation Place

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Bed			
Bioretention			
Total			
Annual CSO Reduction (gal)			



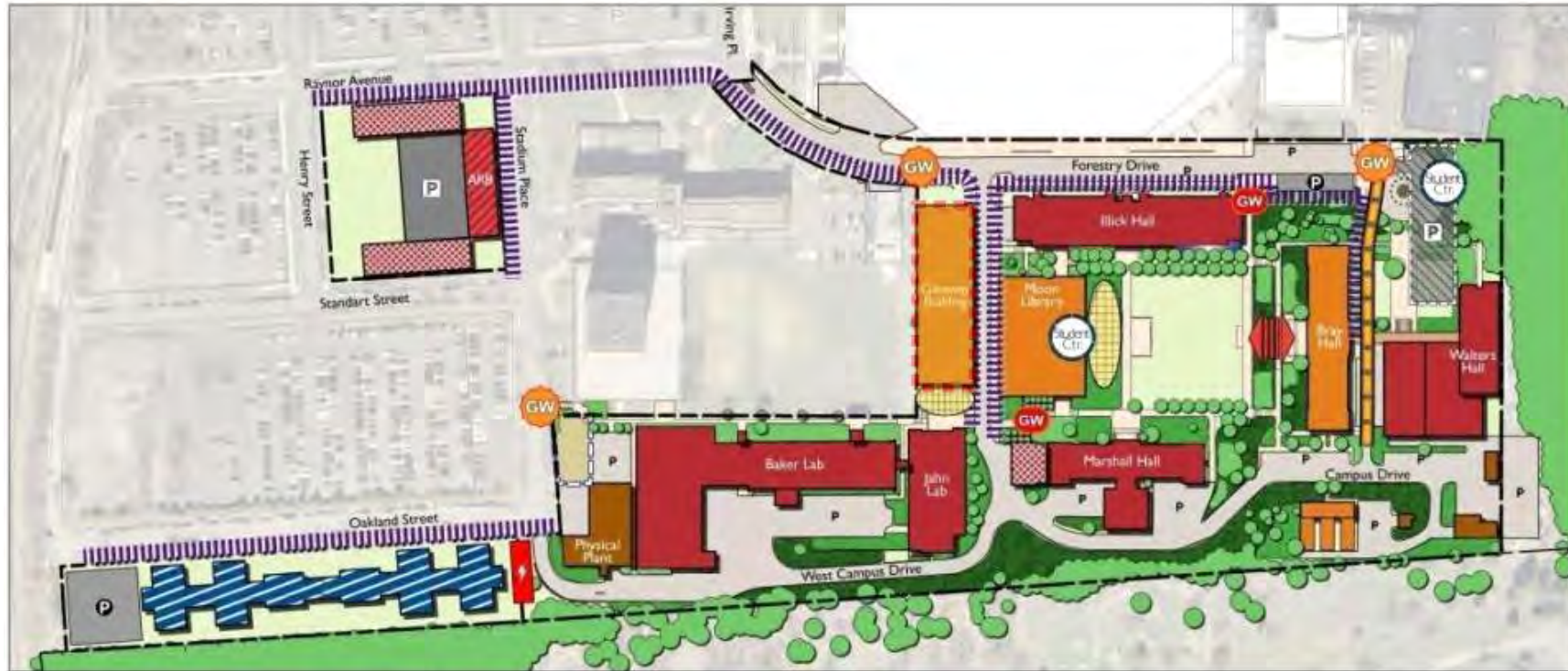


Project ID/Name: M-16 SUNY ESF Gateway Building

Proj Address: 1 Forestry Drive

Parcel Owner: SUNY ESF

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	25,000	25,000	442,000
Total	25,000	25,000	442,000
Annual CSO Reduction (gal)			313,820



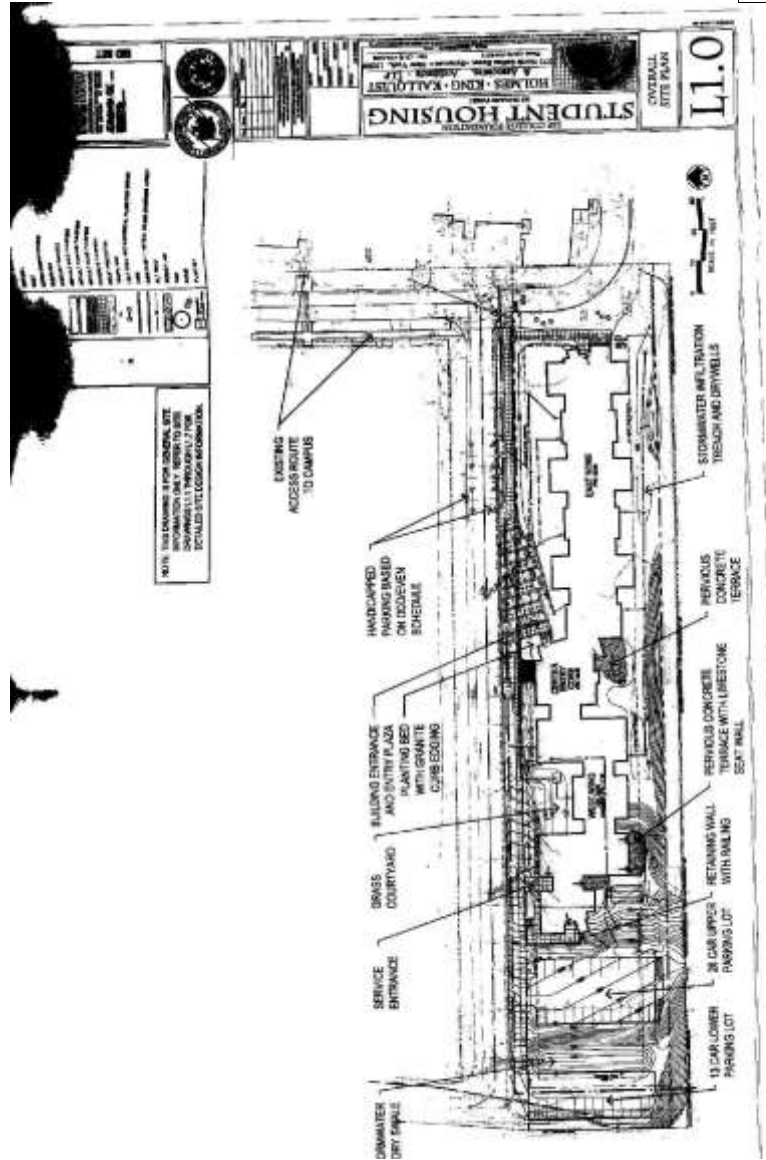


Project ID/Name: M-17 GIF#09 SUNY ESF Residence Hall (Centennial Hall)

Proj Address: 1 Forestry Drive

Parcel Owner: SUNY ESF

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Sidewalk	3,500	3,500	61,641
Total	3,500	3,500	61,641





FACT SHEET

Residence Hall at SUNY- ESF

Project:	SUNY-ESF Residence Hall
Project Owner:	ESF Foundation
GI Technology:	Infiltration Trench, Cisterns, Bioswales
Project Location:	142 Oakland St.
Sewershed:	Midland
Capture Area:	3,500 square ft
Run-off Reduction:	62,000 gallons/yr
Year Completed:	2011
GIF Award:	\$78,000

Project Description: SUNY Environmental Science and Forestry has recently completed construction on their first-ever residence hall, Centennial Hall. This construction included implementation of several green infrastructure components for which SUNY-ESF received a Green Improvement Fund grant amounting to \$78,000.

This project involved an infiltration trench, a system of cisterns (also known as dry wells), and bioswales to reduce stormwater runoff from the site of the residence hall. These technologies are expected to prevent approximately 62,000 gallons from entering the sewer system each year.



Parking Lot bio-retention system



Tree infiltration trench



Porous Pavement Bike Rack



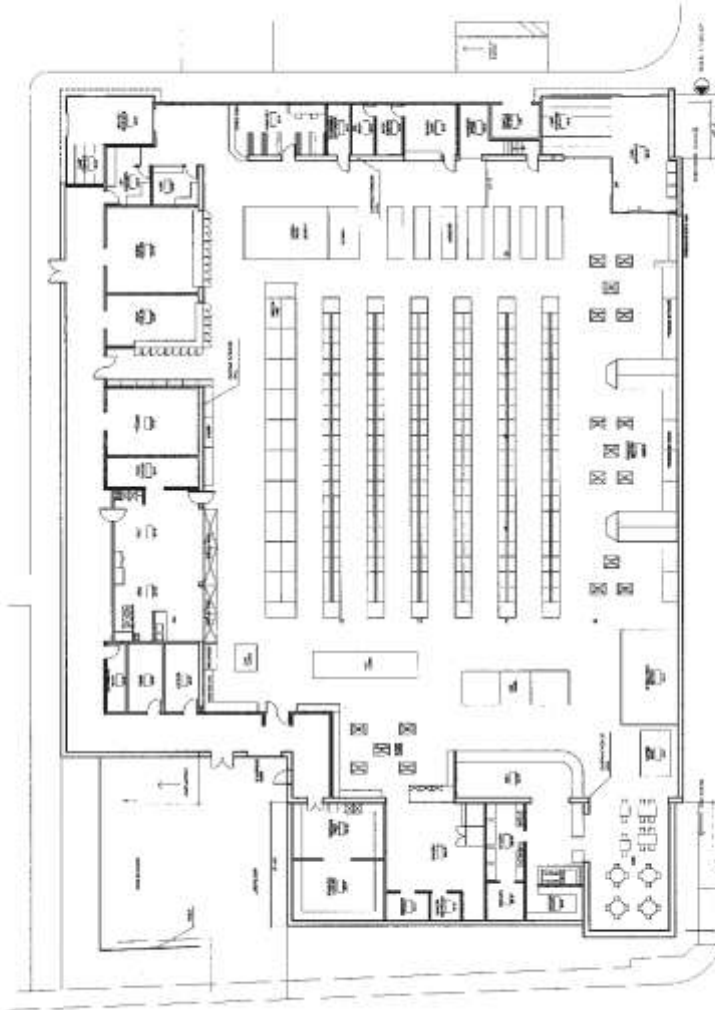
Project ID/Name: M-19 GIF#05 Jubilee Homes of Syracuse

Proj Address: 601 South Avenue

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	11,588	11,588	204,086
Total	11,588	11,588	204,086

Floor Plan for Jubilee Supermarket 601 South Avenue



INSERT TAB FOR 2011 GI
PROJECTS HERE



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2011 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost per CSO Reduction
1	TRACK ONLY	1-CONSTRUCTED	C-117	Tree Plantings in Court Woodlawn	Grant Blvd and Woodlawn Terrace	2011	Private	84,000	\$0	\$0.00
2	CH2M LEAD	1-CONSTRUCTED	C-12a	Townsend St Median Revegetation Phase 1	S Townsend St, from E Adams St to E Genessee St	2011	City of Syracuse	225,000	\$86,000	\$0.38
3	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-12b	Townsend St Median Revegetation Phase 2	E. Adams St to E. Taylor St	2011	City of Syracuse	38,000	\$43,029	\$1.14
4	TRACK ONLY	1-CONSTRUCTED	C-134b	Tree Planting at Union & Demong Parks	Union Pl, Kirkpatrick St, N Salina St	2011	City of Syracuse	34,000	\$0	\$0.00
5	TRACK ONLY	1-CONSTRUCTED	C-137b	Tree Planting at Schiller Park	112 Whitwell Dr	2011	City of Syracuse	114,000	\$0	\$0.00
6	TRACK ONLY	1-CONSTRUCTED	C-146	Havens Parking Lot at SU	E Adams St and Comstock Ave	2011	Syracuse University		\$0	
7	TRACK ONLY	1-CONSTRUCTED	C-147	Waverly Parking Lot at SU	805 South Crouse Avenue	2011	Syracuse University		\$0	
8	CH2M ASSIST AND TRACK	1-CONSTRUCTED	C-29c	Forman Park	E Genesee and Almond Streets	2011	City of Syracuse	86,000	\$50,000	\$0.58
9	CH2M LEAD	1-CONSTRUCTED	C-34	Green Roof at OnCenter	800 S. State Street	2011	County of Onondaga	825,000	\$1,038,000	\$1.26
10	CH2M LEAD	1-CONSTRUCTED	C-38	County Parking Lot: OnCenter	801 - 813 S. State Street; 422 - 434 Harrison St	2011	County of Onondaga	1,676,000	\$812,000	\$0.48
11	CH2M LEAD	1-CONSTRUCTED	C-54d	Downtown Streetscape Grant Projects @ Montgomery St	300 block Montgomery	2011	City of Syracuse	119,000	\$96,600	\$0.81
12	TRACK ONLY	1-CONSTRUCTED	C-70	GIF#020 St Lucy's Church	316 - 318 - 320 Seymour Street	2011	Private	246,000	\$125,000	\$0.50
13	CH2M LEAD	1-CONSTRUCTED	C-92	GIF#040 Courts4Kids: Skiddy Park Porous Basketball Courts	Tully St between Oswego and Tioga	2011	City of Syracuse	244,000	\$162,075	\$0.66
14	CH2M LEAD	1-CONSTRUCTED	E-10	Road Recon. Project No. 3: Concord Place	Concord Place from Westcott St. to Allen St.	2011	City of Syracuse	481,000	\$78,970	\$0.16
15	CH2M ASSIST AND TRACK	1-CONSTRUCTED	E-42	County Board of Election Building	1000 Erie Blvd W & Liberty St	2011	County of Onondaga	0	\$0	\$0.00
16	CH2M LEAD	1-CONSTRUCTED	H-08	Road Recon. Project No. 8: Geddes Street	300-500 blocks S. Geddes St	2011	City of Syracuse	371,000	\$203,274	\$0.55
17	CH2M ASSIST AND TRACK	1-CONSTRUCTED	H-19	Rosamond Gifford Zoo: Elephant Exhibit	One Conservation Place	2011	County of Onondaga	275,000	\$183,000	\$0.67
18	TRACK ONLY	1-CONSTRUCTED	IH-04	Rain Garden at Syracuse Harbor	Van Rensselaar St	2011	New York State	0	\$0	\$0.00
19	TRACK ONLY	1-CONSTRUCTED	M-24	GIF#003 Syracuse Model Neighborhood Corp	S Salina and E Kennedy St	2011	Private	275,000	\$250,000	\$0.91
20	TRACK ONLY	1-CONSTRUCTED	M-39	Bellevue Academy Tree Plantings	S Geddes and Grant Ave	2011	Syracuse City School District	14,000	\$0	\$0.00
21	TRACK ONLY	1-CONSTRUCTED	M-44	Site Improvements at Bishop Foery Center	Edmund Ave	2011	Private			
22	TRACK ONLY	1-CONSTRUCTED	M-45	Rain Garden at Barnabas Center	1941 S Salina St	2011	Private			
23	TRACK ONLY	1-CONSTRUCTED	M-49	Stadium Parking Lot at SU	Stadium Place at E Raynor Ave	2011	Syracuse University		\$0	
24	TRACK ONLY	1-CONSTRUCTED	ZZ-02a	Street Tree Planting Spring 2011	various locations	2011	NA	50,000	\$122,352	
25	TRACK ONLY	1-CONSTRUCTED	ZZ-02b	Street Tree Planting Fall 2011	various	2011	City of Syracuse	297,000	\$122,532	\$0.41
26	TRACK ONLY	1-CONSTRUCTED	ZZ-07b	Countywide Rain Barrel Program	n/a	2011	Private	863,000	\$25,410	\$0.03
27	CH2M LEAD	2-UNDER CONSTRUCTION	C-07	Municipal Parking Garage: OnCenter	817 - 835 S. State Street and E. Adams Street	2011	County of Onondaga	907,000	\$246,985	\$0.27
28	CH2M LEAD	2-UNDER CONSTRUCTION	C-101	Green Park: Skiddy Park (Site)	Tully St between Oswego and Tioga	2011	City of Syracuse	638,000	\$244,000	\$0.72
29	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-103	GIF#039 Home Headquarters Marcellus	223 Marcellus St.	2011	Private	63,000	\$36,045	\$0.57
30	TRACK ONLY	2-UNDER CONSTRUCTION	C-105	GIF#041 CNY Philanthropy Center	431 E Fayette St	2011	Private	134,000	\$62,700	\$0.47
31	TRACK ONLY	2-UNDER CONSTRUCTION	C-108	GIF#044 American Beech	500 Westcott Street	2011	Private	76,000	\$53,050	\$0.70
32	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-109	GIF#45 Pemco Montgomery	217 Montgomery Street	2011	Private	606,000	\$288,000	\$0.47
33	CH2M LEAD	2-UNDER CONSTRUCTION	C-11	Commercial Green Streets: Harrison Street	Harrison Street, from Montgomery to State Streets	2011	City of Syracuse	128,000	\$109,920	\$0.86
34	TRACK ONLY	2-UNDER CONSTRUCTION	C-120	GIF#050 Plymouth Congregational Church	232 E. Onondaga St	2011	Private	129,000	\$73,700	\$0.57
35	TRACK ONLY	2-UNDER CONSTRUCTION	C-121	GIF#051 Park Central Presbyterian Church	509 E Fayette St	2011	Private	43,000	\$24,625	\$0.57
36	TRACK ONLY	2-UNDER CONSTRUCTION	C-122	GIF#052 St. Lucy's Parking Lot	432 Gifford Street	2011	Private	177,000	\$51,900	\$0.29

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	<u>CSO Reduction</u> (gal/yr)	<u>Cost (1)</u>	<u>Cost per CSO</u> <u>Reduction</u>
37	TRACK ONLY	2-UNDER CONSTRUCTION	C-123	GIF#053 St. Lucy's Dry Well	432 Gifford Street	2011	Private	90,000	\$17,700	\$0.20
38	TRACK ONLY	2-UNDER CONSTRUCTION	C-128	GIF#058 Loon Creek Properties	601 E. Genesee Street	2011	Private	272,000	\$124,350	\$0.46
39	TRACK ONLY	2-UNDER CONSTRUCTION	C-129	GIF#059 McMahon-Ryan Child Advocacy Center	601 E. Genesee Street	2011	Private	468,000	\$178,050	\$0.38
40	TRACK ONLY	2-UNDER CONSTRUCTION	C-139	GIF#060 Kopp Billing Agency	511 E Fayette St.	2011	Private	235,000	\$25,300	\$0.11
41	TRACK ONLY	2-UNDER CONSTRUCTION	C-140	GIF#061 The Spa at 500 Green Roof	500 W Onondaga St	2011	Private			
42	TRACK ONLY	2-UNDER CONSTRUCTION	C-141	GIF#062 Peace Incorporated	200 Wyoming Street	2011	Private	44,000	\$30,700	\$0.70
43	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29a	Connective Corridor Phase 1 - Contract 1 (University Ave)	University Ave, from E Genesee to Waverly St	2011	City of Syracuse	4,076,820	\$948,717	\$0.23
44	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-29b	Connective Corr Phase 1 - Contract 2 (E. Genesee St)	E Genesee St from University Ave to Forman Ave	2011	City of Syracuse	1,771,000	\$442,750	\$0.25
45	CH2M LEAD	2-UNDER CONSTRUCTION	C-33	Cistern System at the War Memorial	200 Madison Street	2011	County of Onondaga	285,000	\$1,229,241	\$4.32
46	CH2M LEAD	2-UNDER CONSTRUCTION	C-42	Private Parking Garage: Atrium	S. Franklin St and W Washington St	2011	Private	27,000	\$15,000	\$0.56
47	TRACK ONLY	2-UNDER CONSTRUCTION	C-45	GIF#018 Putnam Properties	210 E. Fayette St.	2011	Private	58,000	\$75,757	\$1.32
48	CH2M LEAD	2-UNDER CONSTRUCTION	C-48	Green Roof at Erie Canal Museum and Visitor Center	318 Erie Blvd. East	2011	County of Onondaga	28,000	\$73,480	\$2.65
49	CH2M LEAD	2-UNDER CONSTRUCTION	C-54c	Downtown Streetscape Grant Project @ Water St	200 block E Water	2011	City of Syracuse	93,000	\$133,400	\$1.43
50	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-55	Green School: SCSD Institute of Technology	258 E. Adams St.	2011	Syracuse City School District	1,598,000	\$0	\$0.00
51	CH2M LEAD	2-UNDER CONSTRUCTION	C-61	Gateway Project at Water Street	300 Water Street	2011		656,000	\$920,088	\$1.40
52	CH2M LEAD	2-UNDER CONSTRUCTION	C-74a	Otisco Street Green Corridor - Phase 1	from Ontario St to Seneca St	2011	City of Syracuse	1,818,000	\$1,413,732	\$0.78
53	TRACK ONLY	2-UNDER CONSTRUCTION	C-75a	SUNY Upstate Cancer Center Green Roof	750 E Adams St	2011	Private	150,000	\$0	\$0.00
54	TRACK ONLY	2-UNDER CONSTRUCTION	C-75b	SUNY Upstate Cancer Center Rain Garden	750 E Adams St	2011	Private	23,000	\$0	\$0.00
55	TRACK ONLY	2-UNDER CONSTRUCTION	C-75c	SUNY Upstate Cancer Center Tree Planting	750 E Adams St	2011	Private	23,000	\$0	\$0.00
56	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-77	GIF#022 Alexander West Properties, LLC	327 Gifford Street	2011	Private	109,000	\$136,050	\$1.25
57	TRACK ONLY	2-UNDER CONSTRUCTION	C-78	GIF#024 CNY Regional Transportation Authority	624-662 South Warren Street	2011	Private	883,000	\$65,390	\$0.07
58	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-79	GIF#026 Central New York Jazz Arts Fndtn	441 E. Washington Street	2011	Private	38,000	\$52,188	\$1.39
59	CH2M LEAD	2-UNDER CONSTRUCTION	C-85	SCSD Central Offices	725 Harrison Street	2011	Syracuse City School District	1,446,000	\$403,500	\$0.28
60	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-91	SUNY Upstate: Institute of Human Performance Expansion	505 Irving Avenue	2011	Private	293,000	\$0	\$0.00
61	TRACK ONLY	2-UNDER CONSTRUCTION	C-96	GIF#034 Pike Block	S Salina & W Fayette St	2011	Private	391,000	\$186,143	\$0.48
62	TRACK ONLY	2-UNDER CONSTRUCTION	C-98a	Greening the Grey at Clinton Storage Facility	Street North to West Jefferson (Trolley Lot)	2011	County of Onondaga		\$0	\$0.00
63	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	C-99	Vacant Lot Project #2	701 Oswego Street	2011	City of Syracuse	184,000	\$85,214	\$0.46
64	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	E-12	Dr Edwin E Weeks Elementary School	710 Hawley Ave	2011	Syracuse City School District	1,546,000	\$89,000	\$0.06
65	CH2M LEAD	2-UNDER CONSTRUCTION	E-16	Sunnycrest Park Golf Parking Lot	Caleb Ave	2011	City of Syracuse Parks Depart	506,000	\$362,599	\$0.72
66	CH2M LEAD	2-UNDER CONSTRUCTION	E-31	Pocket Park at N. Clinton St. and W. Genesee St.	200-202 W. Genesee St.	2011	City of Syracuse	89,000	\$105,000	\$1.18
67	CH2M LEAD	2-UNDER CONSTRUCTION	E-36	Sunnycrest Arena Parking Lot	St. Anne Dr and Robinson St	2011	City of Syracuse Parks Depart	1,332,000	\$407,000	\$0.31
68	CH2M LEAD	2-UNDER CONSTRUCTION	E-39	East Water Street Pavement Removal	Interesection of S Beech and E Water at Erie Blvd.	2011	City of Syracuse	545,000	\$123,000	\$0.23
69	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-05	Green Roof at Hazard Branch Library	1620 West Genesee St	2011	City of Syracuse	62,000	\$67,275	\$1.08
70	CH2M LEAD	2-UNDER CONSTRUCTION	H-11	Avery Ave Greening at Pass Arboretum	Avery Ave and Tompkins St	2011	City of Syracuse Parks Depart	530,000	\$316,420	\$0.60
71	CH2M LEAD	2-UNDER CONSTRUCTION	H-13	Wilbur Avenue Zoo Entrance Enhancement	S Wilbur Ave and Coleridge Ave	2011	City of Syracuse	483,000	\$299,990	\$0.62
72	CH2M ASSIST AND TRACK	2-UNDER CONSTRUCTION	H-17	Rain Garden at Grand & Delaware	Grand Ave & Delaware St	2011	City of Syracuse	161,000	\$0	\$0.00
73	TRACK ONLY	2-UNDER CONSTRUCTION	H-24	GIF#031 ARC of Onondaga County	401 Lowell Ave.	2011	Private	212,000	\$95,053	\$0.45
74	TRACK ONLY	2-UNDER CONSTRUCTION	H-27	Greening the Grey at Harbor Brook Storage Facility	State Fair Blvd. and Rusin Ave (near Waite Ave)	2011	County of Onondaga	0	\$0	\$0.00

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	<u>CSO Reduction (gal/yr)</u>	<u>Cost (1)</u>	<u>Cost per CSO Reduction</u>
75	CH2M LEAD	2-UNDER CONSTRUCTION	M-23	Greening the Grey in Basin 044	400-700 W Castle Street	2011	TBD	652,000	\$82,050	\$0.13
76	TRACK ONLY	2-UNDER CONSTRUCTION	M-25	GIF#017 Create Public Art	713 E. Fayette St	2011	Private	64,000	\$94,611	\$1.48
77	CH2M LEAD	2-UNDER CONSTRUCTION	M-29	Hughes Magnet School Parking Lot	745 -55 Jamesville Ave	2011	Syracuse City School District	1,068,000	\$288,700	\$0.27
78	TRACK ONLY	2-UNDER CONSTRUCTION	M-35	GIF#030 The People's Community Development Corporation	2307-2315 S. Salina St	2011	Private	66,000	\$80,200	\$1.21
79	TRACK ONLY	2-UNDER CONSTRUCTION	M-36	GIF#033 Matawon Development Group	2221 South Salina Street	2011	Private	52,000	\$24,214	\$0.54
80	TRACK ONLY	2-UNDER CONSTRUCTION	M-37	Rooftop Disconnect in CSO 045	119 Crescent Ave	2011	Private	49,000	\$0	\$0.00
81	TRACK ONLY	2-UNDER CONSTRUCTION	M-41	GIF#049 Swallow's Tavern	1908 South Ave, 1912 South Ave	2011	Private	278,000	\$89,700	\$0.32

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

31,972,820

\$13,670,729

Average

0.57

Rain Barrel Program:

CSO reduction estimated as follows: in 2011, 363 rain barrels distributed @ 55 gallons/barrel or 3,351 gallons/year stormwater capture/barrel

363 rain barrels @ 3,351 gallons/year/barrel = a runoff reduction of 1,216,000 gallons and CSO reduction = 863,000 gallons

Cost: 363 rain barrels @ \$70/barrel = \$25,410



Onondaga County Dept. of
Water Environment Protection

Green Infrastructure Projects
2011

● GI Project Location (ID - ###)

CSO Sewsersheds

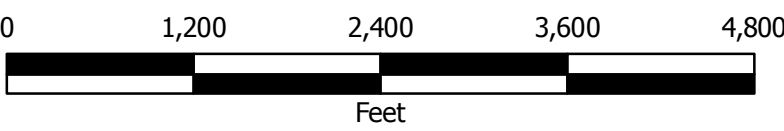
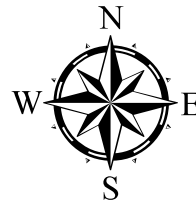
Clinton/Lower MIS

Harbor Brook

Hiawatha RTF

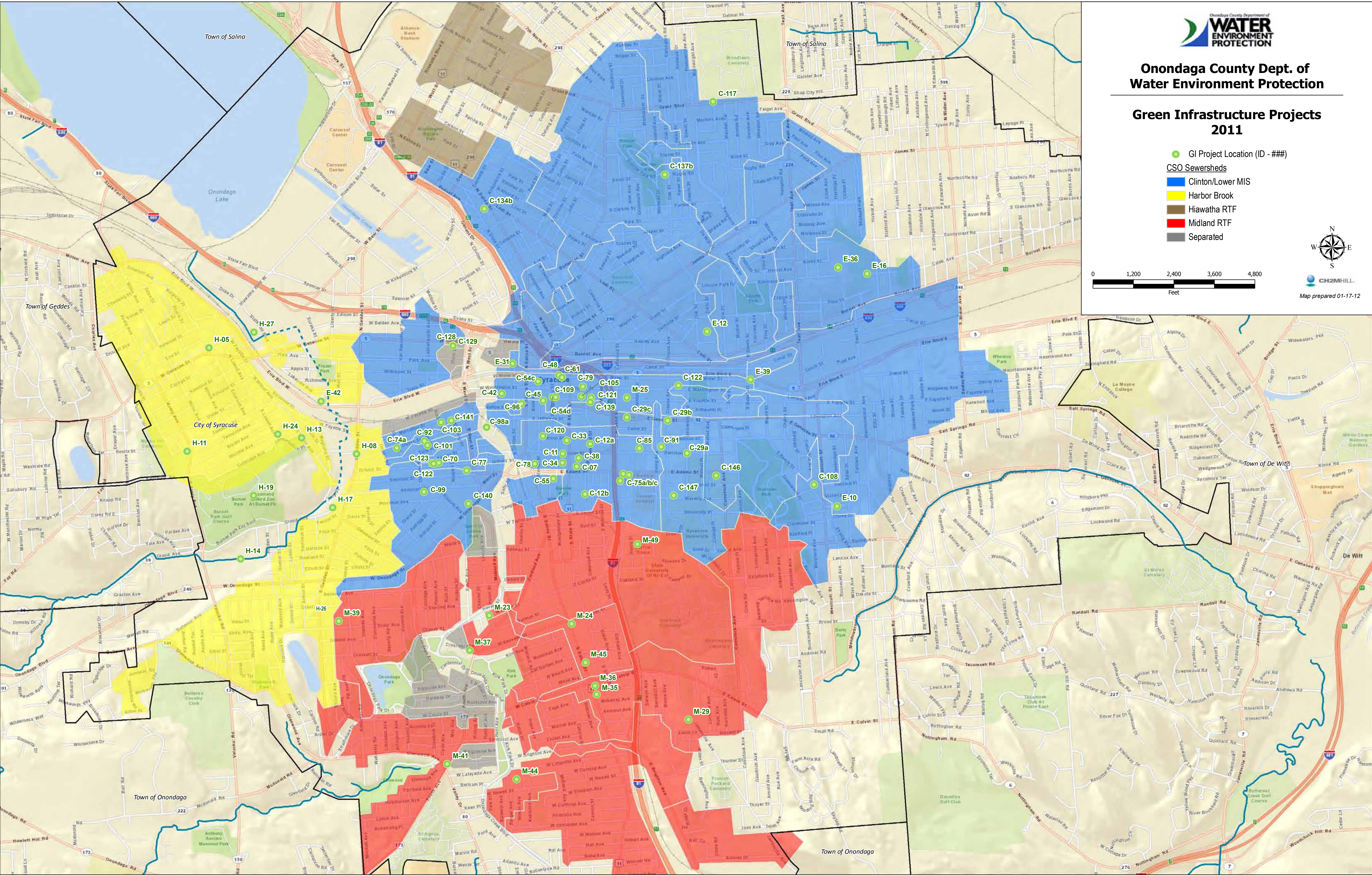
Midland RTF

Separated



CH2M HILL

Map prepared 01-17-12





Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or gal)	Annual Capture (gal)
Bioretention	72,000	2,000	1,277,000
Roof Leader/Plumbing High		000	
Total	72,000	2,000	1,277,000
Annual CSO Reduction (gal)			906,670





FACT SHEET

OnCenter Municipal Parking Garage

Project Description: The OnCenter War Memorial Arena Parking Garage Project will take place at the municipal parking garage to the east of the historic OnCenter/War Memorial Arena. The OnCenter is home to countless entertainment attractions for local, regional and national audiences. Since 1992, the OnCenter has been the premiere convention location for the region.

The project involves the design and construction of rain gardens on the existing landscape surrounding the garage. This new bio-retention feature will capture and infiltrate the storm water runoff coming from the existing roof leaders and pipe/downspout infrastructure of the parking garage facility. Disconnecting this existing infrastructure from the conventional sewer system will result in an annual capture of approximately 1.3 million gallons of storm water per year.

Project:	OnCenter Parking Garage
GI Technology:	Bioretention
Project Location:	817-835 S. State Street
Project Owner:	Onondaga County
Sewer shed:	Clinton/Lower MIS
Capture Area:	72,500 Square Feet
Run-off Reduction:	1,277,000 Gallons/PY
Year Completed:	2011
Construction Cost:	\$234,000 (est.)
Bid Date:	7/21/11
Prime Contractor:	N/A



Existing Site Conditions



**Examples of Rain Garden
(Dry and Wet Conditions)**

Green Infrastructure Project Status Report

Project C-07: OnCenter Municipal Parking Garage

PREPARED FOR: January 2012
Contractor: Economy Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater and Site Details and Specifications

- 1A. Modular Storage System.** The Contractor proposed a substitution, “StormTech” for the specified modular storage system, “StormTank”. The substitution design for the “StormTech” system was reviewed by the Engineer and found to be acceptable, and substitution paperwork per the Appendix to the General Specifications was completed. The substituted design has been reflected as appropriate in the project as-builts. Installation of this system occurred per the manufacturer’s recommendations in October 2011. This is the first time this type of system has been used in the Onondaga County Green Infrastructure Program.

Further Action Needed: Landscaping and garage downspout disconnections/outfalls will be completed in the spring.

- 1B. Stormwater Collection Piping and Supports.** During construction, the Contractor requested changing the pipe material to Schedule 40 PVC versus the specified SDR 35, because the pipe color and material were more readily available. This was approved at no additional cost to the County. Due to the fact that the bioretention areas could not be planted in 2011, the Contractor installed the stormwater collection piping without connecting it to the existing collection system.

Further Action Needed: In the future when specifying stormwater collection systems utilizing PVC pipe, Schedule 40 or 80 pipe will be specified. Per plumbing code, stormwater piping shall be either white or blue color – for which Schedule 40 or 80 is more readily available. New stormwater piping will be connected to the collection system in spring 2012 once the bioretention areas are completed.

- 1C. Air Spading Excavation.** Air spading excavation occurred around the trees in front of the OnCenter Garage on East Adams Street. While effective, more inspection of the Contractor’s means and methods are required where specified in the future, particularly with regard to air compressor pressure and care of exposed roots during construction.

Further Action Needed: Allocate more inspection resources as needed where air spading is specified.

Item #2: Trees and Plantings

- 2A. Bioretention Plantings.** Plantings were not installed in 2011 due to the fact that planting of the plugs would have occurred outside of the specified planting window. As a result, only the S3 planting soil layer was installed.

Further Action Needed: In Spring 2012, the S1 planting soil layer will be installed above the S3 planting soil layer and the bioretention planting plugs will be installed.

Item #3: Public Outreach

- 3A. Save the Rain Website.** The primary public outreach method for the OnCenter Garage project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$246,985
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$246,985
Total CSO Reduction	907,000 gallons
Cost per CSO Reduction	\$0.27 per gallon

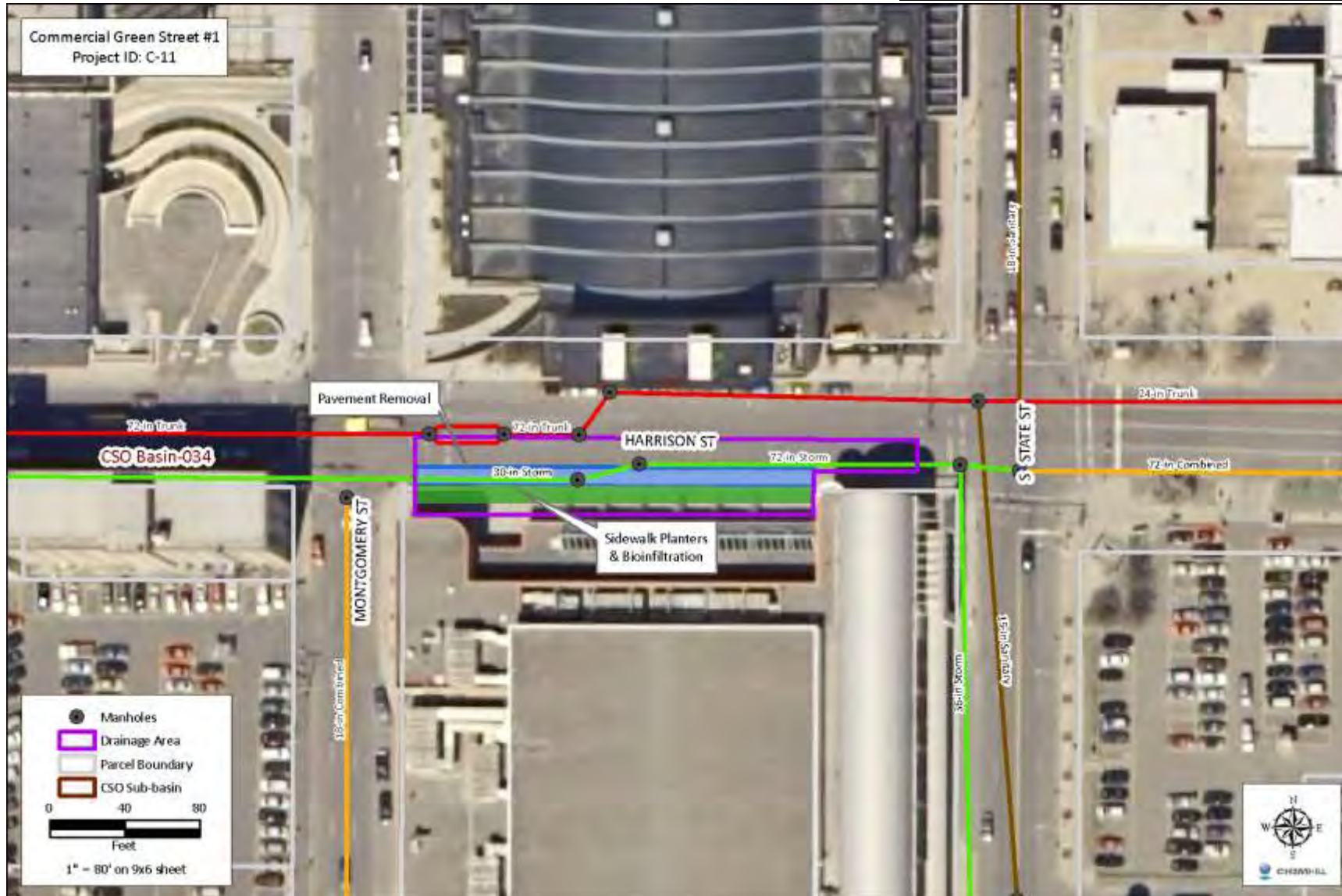


Project ID/Name: C-11 Commercial Green Streets: Harrison Street

Proj Address: Harrison Street, from Montgomery to State Streets

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Sidewalk Planter	9,650	1,800	169,954
Total	9,650	1,800	169,954





FACT SHEET

Harrison Street Commercial Green Street

Project Description: The project is located on the southern side of Harrison Street, between Montgomery and State Streets, on the northern side of the OnCenter Convention Center (across from the historic War Memorial Arena). The OnCenter is home to countless entertainment attractions for local, regional and national audiences. Since 1992, the OnCenter has been the premiere convention location for the region.

The storm water retrofit project along the 300 block of Harrison Street next to the OnCenter features the installation of a new sidewalk planter that uses bio-retention practices to capture and treat surface runoff from the adjacent roadway. Run off enters the planter via four new curb storm water inlets, irrigating the new native shade trees, ornamental shrubs, and colorful perennials, and then infiltrates through an aggregate trench down into the sub-grade below.

Project:	Harrison Street
GI Technology:	Bio-retention and Infiltration Trench
Project Location:	300 Block of Harrison Street
Project Owner:	City of Syracuse
Sewer shed:	Clinton/Lower MIS
Capture Area:	10,000 Square Feet
Run-off Reduction:	180,000 Gallons/PY
Year Completed:	2011
Construction Cost:	\$125,000 (conceptual)



Existing Conditions



Proposed Concept streetscape Bio-retention

Green Infrastructure Project Status Report

Project C-11: Harrison Street

DATE: January 2012

Contractor: Economy Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Site Details and Specifications

- 1A. Granite Curb Backing.** During the course of the project it was determined that additional concrete backing, behind the granite curbing, would be desirable. A request was made to install the additional concrete but the Contractor had already installed S3 soil at the time of the request.

Further Action Needed: The condition of the curbing will be monitored closely over the winter to see how it withstands snowplowing. Due to the straight alignment of this section of curb, additional backing and/or thrust protection may not be required.

- 1B. Lighting Bollards.** At the request of Syracuse University, the specified lighting bollards were exchanged with the lighting bollards that are being installed elsewhere in the Civic Strip, such as along the Connective Corridor. Due to a significant lead time for these lighting bollards (8+ weeks), the bollards were not installed in 2011. The additional cost of the revised bollard type will be covered by Syracuse University.

Further Action Needed: The lighting bollards are expected to be delivered in mid January 2012, at which time they will be immediately installed by the Contractor. Prior to their installation, the bollard bases have been protected with construction traffic barrels.

Item #2: Trees and Plantings

- 2A. Trees and Plantings.** The trees and landscape plantings along Harrison Street were not installed in 2011 due to exceeding the planting schedule presented in the specifications. Because of this, only the S3 planting soil layer was installed. Additional S3 soil was installed to bring the level of soils up to grade for safety reasons during winter 2011/2012.

Further Action Needed: In Spring 2012, the condition of the soil will be evaluated to see if S3 has to be removed. If not, the contractor will install the S1 planting soil and installation of landscaping.

Item #3: City Common Council Approval

- 3A. Street Narrowing.** Just prior to construction starting, it was determined through discussion with various City personnel that City Common Council Approval is required for any road narrowing within the Downtown District (boundaries defined as between I-690 and Adams Street and West Street and I-81). The City of Syracuse Departments of Public Works and Engineering drafted legislation and received Common Council approval for the road narrowing involved with this project.

Further Action Needed: For all future projects involving road narrowing in the Downtown District, CH2M HILL will notify the City of Syracuse Departments of Public Works and Engineering of each project so that legislation can begin and be finalized prior to construction starting.

Item #4: Public Outreach

- 4A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

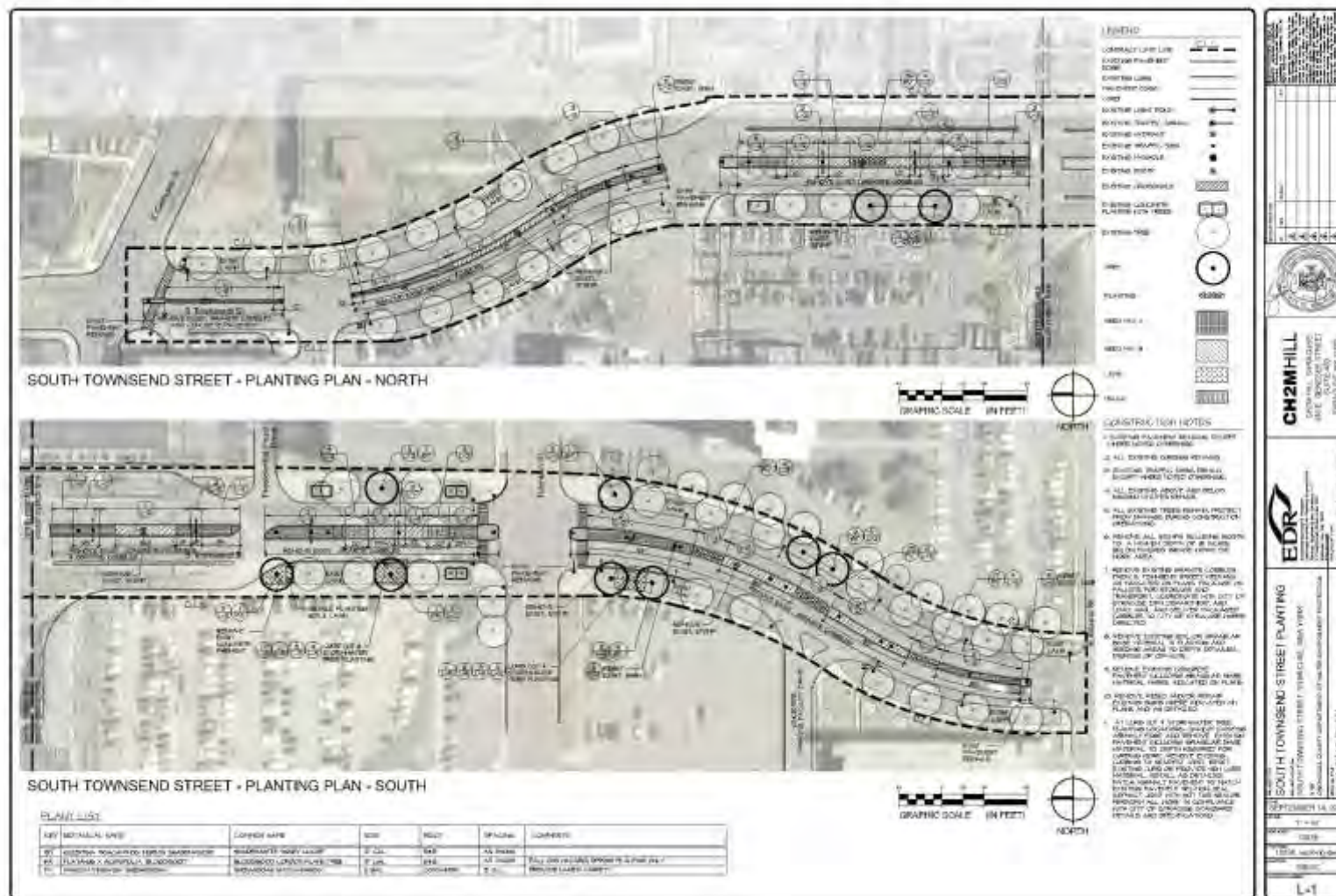
Bid Price	\$109,920
Change Order Total (as of 12/31/11)	\$9,246.10*
Total Project Cost (as of 12/31/11)	\$109,920
Total CSO Reduction	128,000 gallons
Cost per CSO Reduction	\$0.86 per gallon

*To be paid for by Syracuse University



Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Enhanced Street Trees	18,000	13,785	317,013
Total	18,000	13,785	317,013





Project:	Townsend Median
GI Technology:	Enhanced Street Trees & Pavement Removal
Project Location:	S Townsend St Median (E Adams St to McCarthy Ave)
Project Owner:	Onondaga County
Sewershed:	Clinton
Capture Area:	18,000 square feet
Run-off Reduction:	317,000 gallons/yr
Year Completed:	2011
Construction Cost:	\$86,000

FACT SHEET

Townsend Median Retrofit

Project Description: The Townsend Median project, completed in 2011, is a stormwater retrofit project that features the redesign of the existing Townsend Street median and the planting of ten new trees along both sides of S. Townsend Street between E. Adams St. and McCarthy Ave.

The new median is designed to be below surface grade, allowing stormwater from both sides of S. Townsend Street to drain directly into the median, irrigate new vegetation, and eventually infiltrate. The median's new design features combination plantings of native grasses in place of the existing pavement and concrete cobbles. Existing street trees within the median are preserved, while new street trees enhance the existing streetscape, fill vacant tree pits, and ultimately increase tree canopy coverage. In addition, four new street trees are designed to be "stormwater trees," with new curb stormwater inlets built into the existing curb to allow stormwater runoff to infiltrate the planting soils around the trees. The entire Townsend Median project is anticipated to capture approximately 317,000 gallons of stormwater runoff each year.



Before



After

Version 7/27/2011



Project ID/Name: C-12b Townsend St Median Revegetation Phase 2

Proj Address: E. Adams St to E. Taylor St

Parcel Owner: City of Syracuse

Green Technology

Impervious
Area (SF)

Green Infrastructure
Area (SF or Gal)

Annual Capture
(gal)

Landscape Restoration

3,000

3,000

53,000

Total

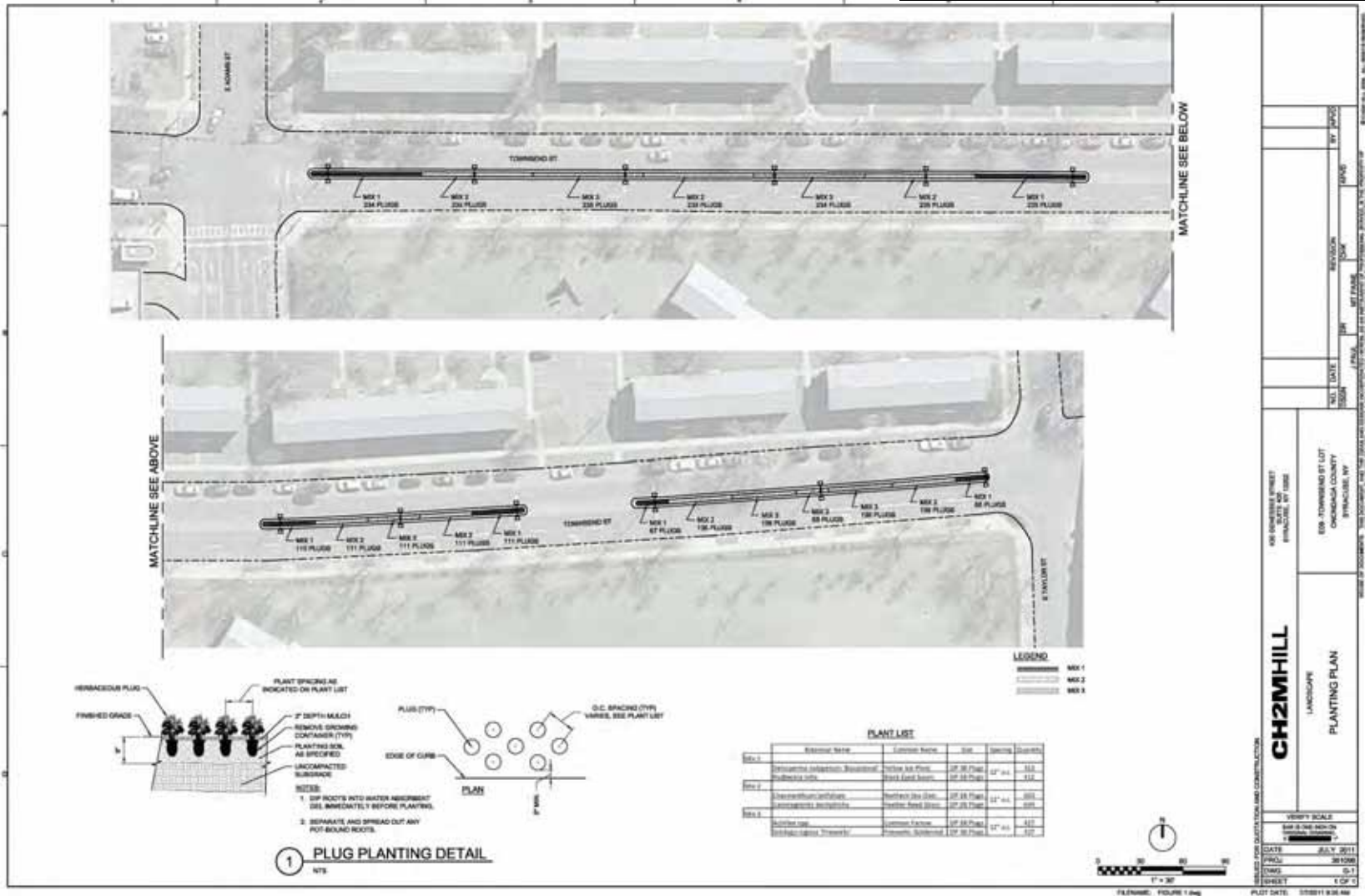
3,000

3,000

53,000

Annual CSO Reduction (gal)

37,630





FACT SHEET

Townsend Median Retrofit – Phase 2

Project:	Townsend Median (Phase 2)
Project Owner:	City of Syracuse
Project Location:	S Townsend St. Median from E. Adams to E. Taylor Street
Sewershed:	Clinton/Lower MIS
GI Technology:	Pavement Removal/Plantings
Capture Area:	3,000 sq. ft.
Run-off Reduction:	53,000 gal/yr
Year Completed:	2011
Construction Cost:	\$43,000
Prime Contractor:	Davis Wallbridge

Project Description: The Townsend Median Project, completed in 2011, is a stormwater retrofit project that features the landscape restoration of the existing Townsend Street median. Phase 2 involves the planting of various planting plugs and shrubs along of S. Townsend Street between E. Taylor Street and E. Adams Street.

The new median is designed to be below surface grade, allowing stormwater from both sides of S. Townsend Street to drain directly into the median, irrigate new vegetation, and slowly infiltrate. This project is the second Save the Rain project along Townsend Median, with the first spanning the length of the median between E. Genesee and E. Adams Street. The entire Townsend Median project is anticipated to capture approximately 370,000 gallons of stormwater runoff each year.



Phase 2 Townsend St. Median Plantings



Aerial View of Phase 2 of S. Townsend St. Median (looking north)

Green Infrastructure Project Completion Report Project C-12a/b: Townsend Median – Phases 1 and 2

DATE: January 2012

Contractor: Davis Wallbridge

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Trees and Plantings

- 1A. Phase 1 (E. Genesee to E. Adams) Plantings.** After the seed mix was installed and established in early June 2011, it was determined that inadequate weeding occurred. As a result, weeds overwhelmed the plant bed of native species and created an unappealing mixture of weeds and native plants in the median. Numerous complaints were received on how unappealing the plant bed looked. Given the difficulty to removing the weeds from the median (without damaging the plantings) it was decided that the entire median would be mowed and plantings would be reestablished in 2012.

Further Action Needed: In Spring 2012, the existing Phase 1 median plantings and weeds will be removed and a new plug-based planting scheme will be installed. The new planting scheme will establish quickly, preventing weeds from overwhelming the median again. However, maintenance of the median during the initial establishment period will be very important, and will be monitored closely for compliance.

- 1B. Phase 2 (E. Adams to E. Taylor) Plantings.** The Phase 2 planting plugs were installed in August 2011 and quickly established themselves preventing weeds from overwhelming the median. However, the lack of watering by the Contractor has led to the demise of some of the plantings.

Further Action Needed: The plantings will be inspected in spring 2012, and the plantings that did not survive the winter will be replaced under warranty. The Contractor will perform maintenance (watering, weeding, etc.) in the median as contractually required during the spring and fall of 2012.

Item #2: Public Outreach

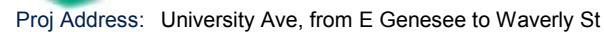
- 2A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$86,000
Change Order Total (as of 12/31/11)	\$43,029*
Total Project Cost (as of 12/31/11)	\$129,029
Total CSO Reduction	263,000 gallons
Cost per CSO Reduction	\$0.49 per gallon

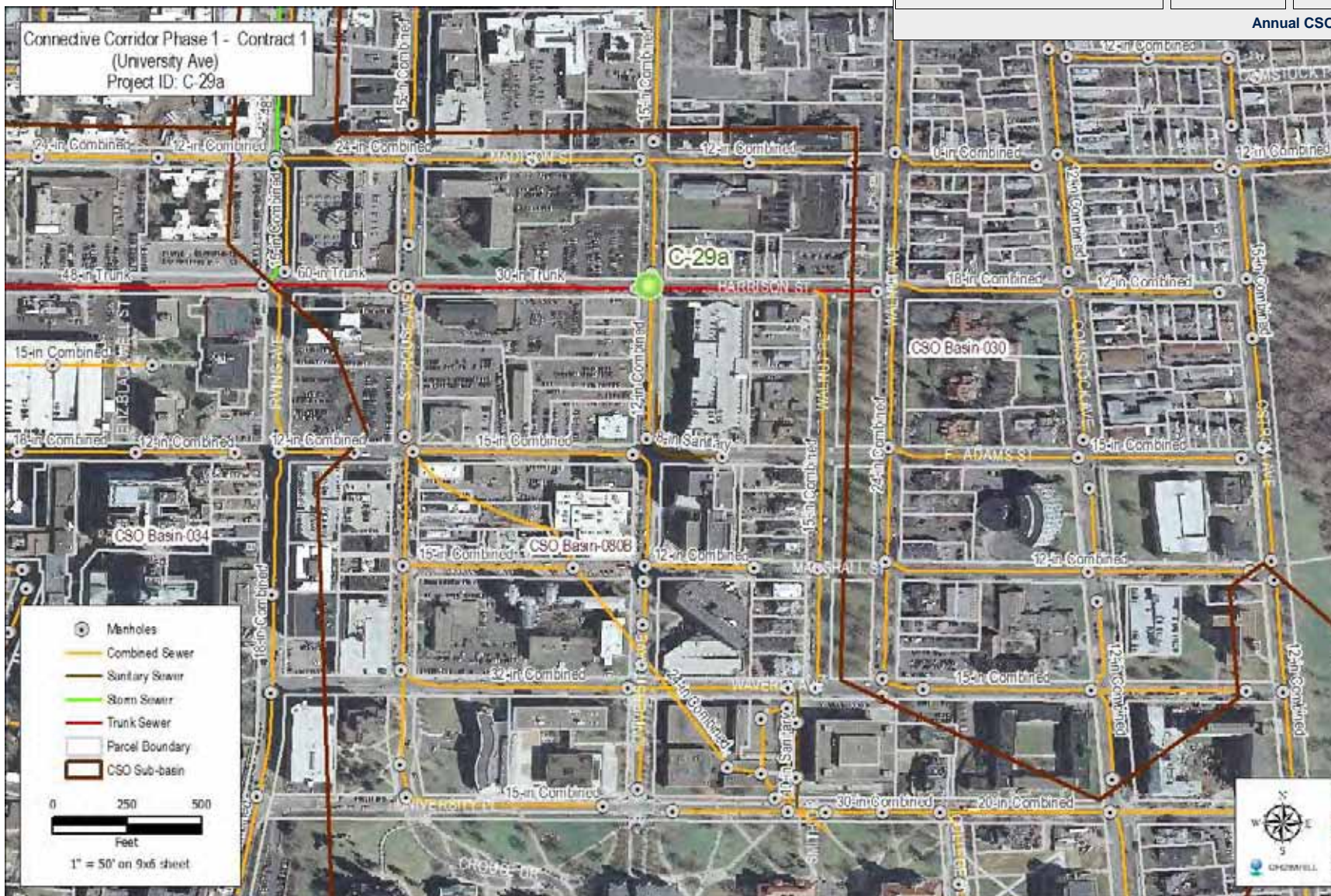
*Note: Phase 2 Median Work was done as Change Order to Phase 1 Median Work.

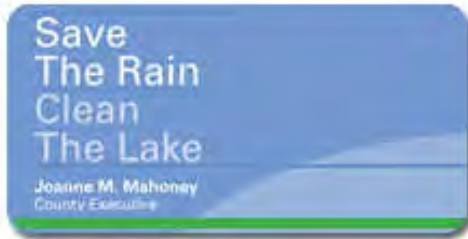


Parcel Owner: City of Syracuse

Project ID/Name: C-29a Connective Corridor Phase 1 - Contract 1 (University Ave)

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Street	326,000		5,742,000
Total	326,000		5,742,000
Annual CSO Reduction (gal)			4,076,820





FACT SHEET

Connective Corridor Phase 1, Contract 1

Project Description: The Connective Corridor project is a major infrastructure plan that will create a strong visual and physical link along the major streetscape connections between Syracuse University and the downtown business districts. The project builds upon needed public works improvements, incorporating green infrastructure such as tree trenches and porous pavement into traffic-calming streetscape designs that feature bicycle lanes, landscape buffers between vehicular and pedestrian zones, and enhanced pedestrian facilities. The project required close collaboration and cooperation among the City of Syracuse, Syracuse University, and Onondaga County.

This first phase of the Connective Corridor project involves the design and construction of a "green street" on the section of University Avenue between East Genesee and Waverly Streets, in the heart of the Syracuse University area. The project is one of the most significant collaborations between the City, County and Syracuse University and will address a considerable amount of stormwater run-off once completed. In addition to large-scale capture, the project provides a showcase for the implementation of green infrastructure in urban settings in a highly traveled corridor of the City.

Project:	Connective Corridor Phase 1
Project Owner:	City of Syracuse
Project Location:	University Ave.
Sewershed:	Clinton/Lower MIS
GI Technology:	Green Street
Capture Area:	326,000 sq. ft.
Run-off Reduction:	5,742,000 gal/yr
Year Completed:	2011
Construction Cost:	\$948,717 (bid)
Prime Contractor:	Barrett Paving Materials, Inc.

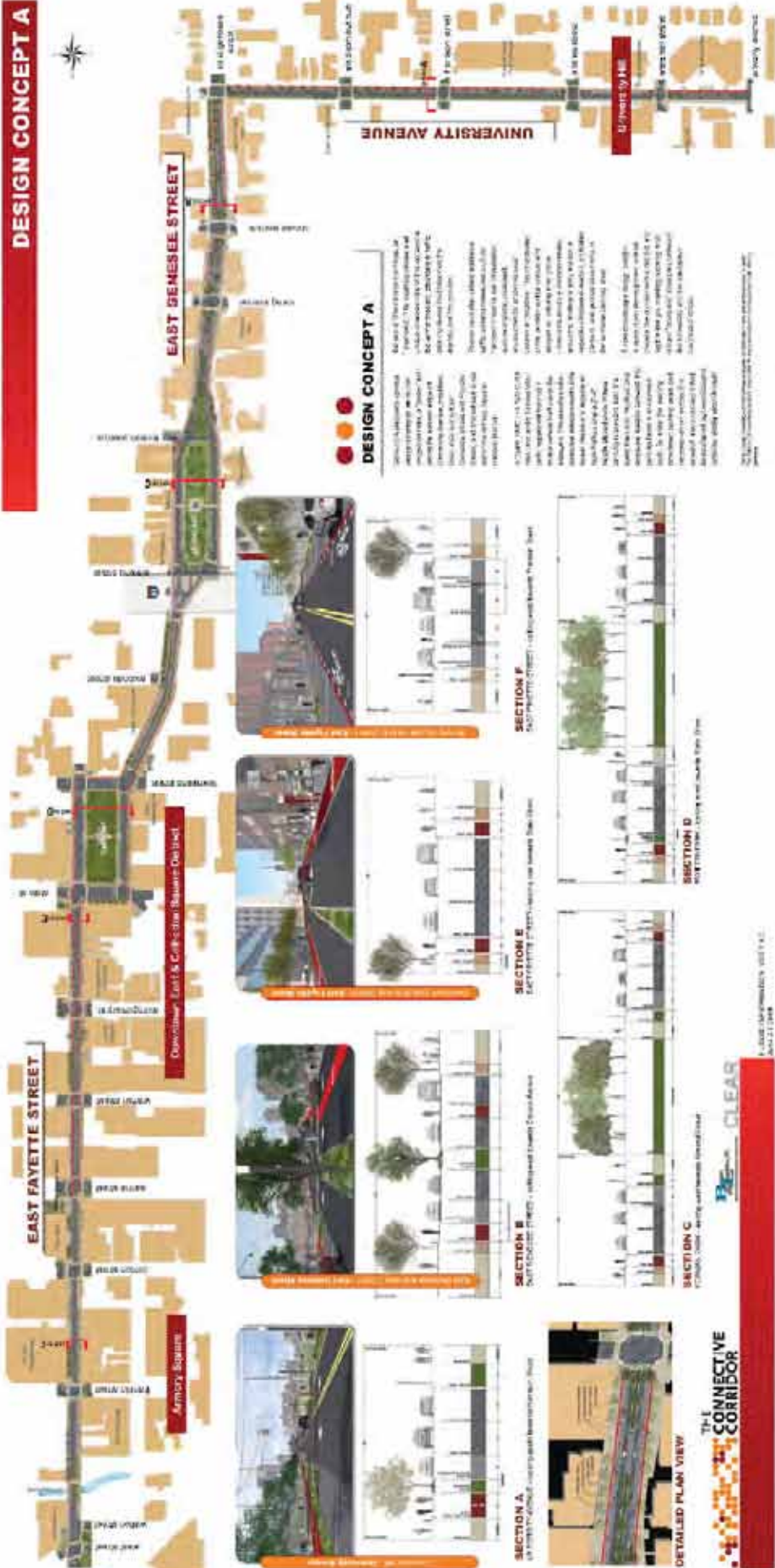


Above: Aerial Photos after Construction Complete



Conditions Prior to Construction

DESIGN CONCEPT A





Parcel Owner: City of Syracuse

Connective Corridor: Phase I, Contract 2
Project ID: C-29b

Annual CSO

Porous Concrete Parking Lanes

Rain Garden

Infiltration Trench Along East Genesee Street

E. GENESEE ST

CSO Basin-027

CSO Basin-060C

CSO Basin-080B

CSO Basin-030

IRVING AVE

S CHOUSE AVE

Manholes

Combined Sewer

Sanitary Sewer

Storm Sewer

Trunk Sewer

Parcel Boundary

CSO Sub-basin

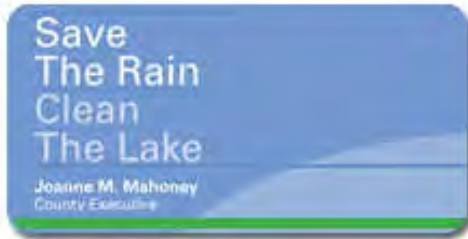
Drainage Area

0 90 180 Feet

1" = 180' on 9x6 sheet

N

CHRYSLER HILL



FACT SHEET

Connective Corridor: Phase 1, Contract 2

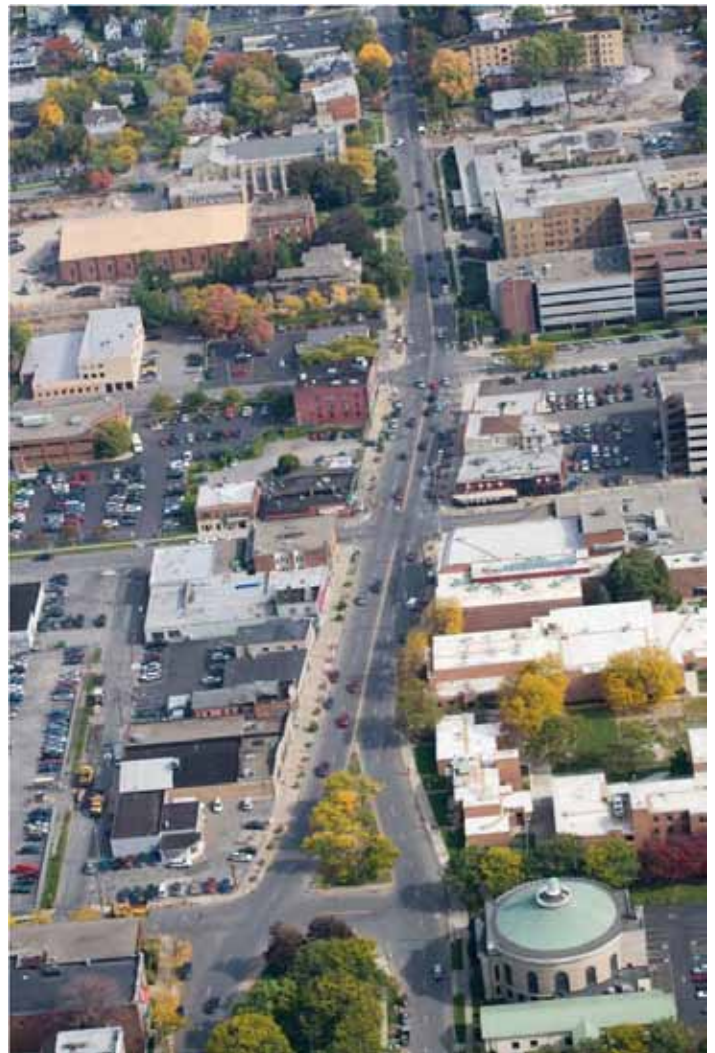
Project Description: The Connective Corridor: Phase 1, Contract 2 project is the third and final Save the Rain project of 2011, done in partnership with the City of Syracuse and Syracuse University. The City and University are constructing a corridor between University Hill and Downtown Syracuse and the Save the Rain program has partnered with both to include green infrastructure throughout the corridor. When combined, the 2011 Connective Corridor Projects will prevent a total of 5.9 million gallons of stormwater from entering the combined sewer system each year.

The East Genesee portion of the Connective Corridor work (Phase 1, Contract 2) consists of creating a green street on both sides of East Genesee. This includes various types of green infrastructure, including subsurface infiltration trenches, porous pavement, tree plantings and bioretention. The result of this work is that 1,771,000 gallons of stormwater is captured annually and kept out of the combined sewer system.



E Genesee St Before Construction

Project:	C.C. Phase 1, Contract 2
Project Owner:	City of Syracuse
Project Location:	E Genesee St. Between University and Forman Ave.
Sewershed:	Clinton
GI Technology:	Green Street
Capture Area:	142,000 sq. ft.
Run-off Reduction:	1,771,000 gal/yr
Year Contracted:	2011
Construction Cost:	TBD
Prime Contractor:	Barrett Paving Materials



**Aerial Photograph of Project Area
Before Construction**

Version 1/5/2011

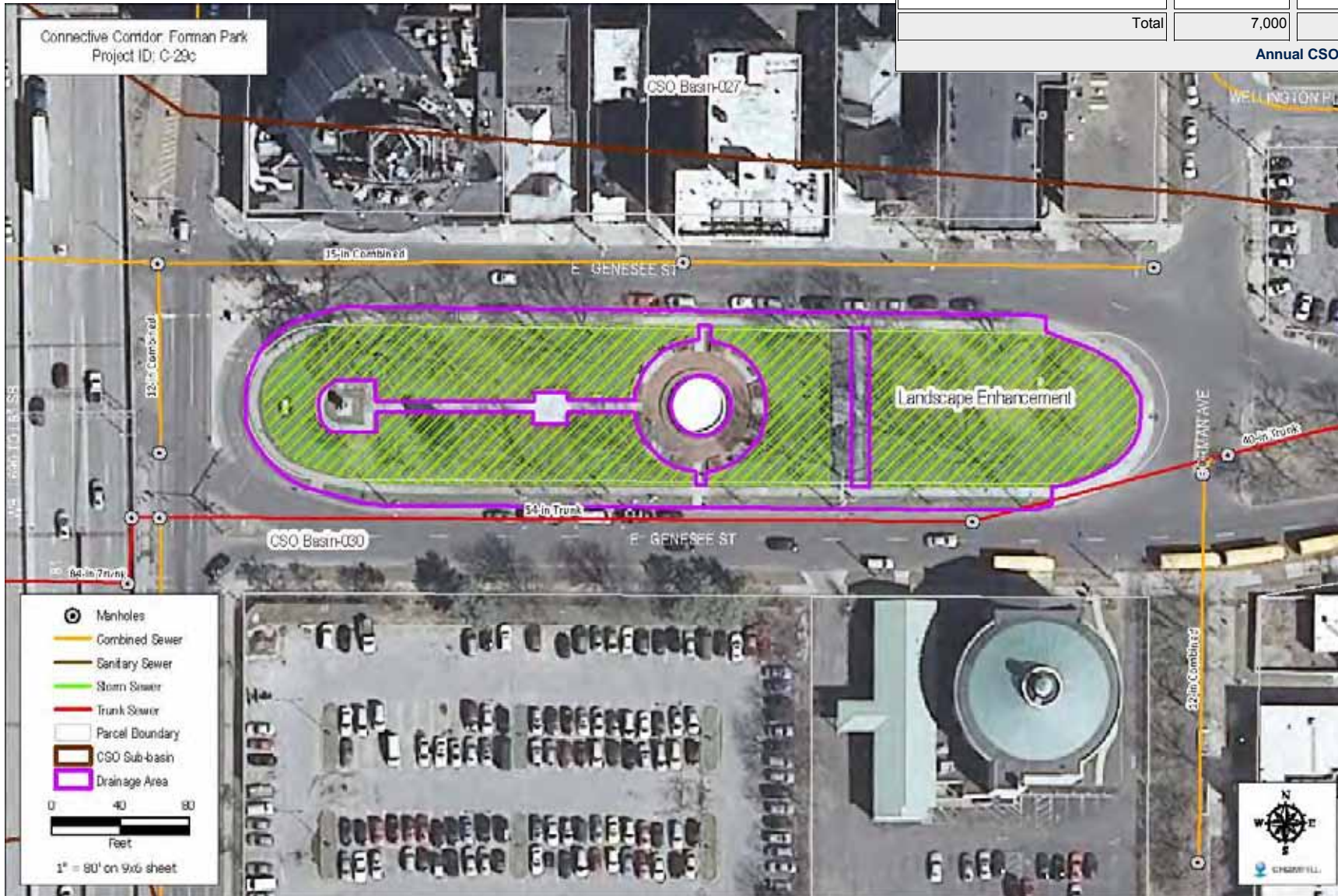


Project ID/Name: C-29c Forman Park

Proj Address: E Genesee and Almond Streets

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Landscape Restoration	6,000	22,000	104,000
Landscape Restoration	1,000	13,000	17,000
Total	7,000	35,000	121,000
Annual CSO Reduction (gal)			85,910





FACT SHEET

Connective Corridor: Forman Park

Project Description:

The Connective Corridor – Forman Park project is the second of three 2011 Save the Rain projects done in partnership with the City of Syracuse and Syracuse University. The City and University are constructing a corridor between University Hill and Downtown Syracuse and the Save the Rain program has partnered with both to include green infrastructure throughout the corridor. As a whole, the 2011 Connective Corridor Projects will prevent a total of 5.9 million gallons of stormwater from entering the combined sewer system annually.

The Forman Park project consists of enhancing the landscaping in and around the park, while capturing stormwater from within the park. In total, 4,045 shrubs and perennials will be planted as part of this project, servicing 6,800 square feet of drainage area and capturing 119,000 gallons of stormwater annually.

Project:	Connective Corridor – Forman Park
Project Owner:	City of Syracuse Parks Dept.
Project Location:	E Genesee St. & Almond St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Landscape Enhancement
Capture Area:	6,800 sq. ft.
Run-off Reduction:	119,000 gal/yr
Year Completed:	2011
Construction Cost:	\$50,000
Primary Contractor:	Ballard Sports



Aerial Photograph of Forman Park During Construction



Area of Landscape Enhancement Prior to Construction



Project ID/Name: C-33 Cistern System at the War Memorial

Proj Address: 200 Madison Street

Parcel Owner: County of
Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Cistern/Rain Barrel	20,700	2,450	365,000
Total	20,700	2,450	365,000

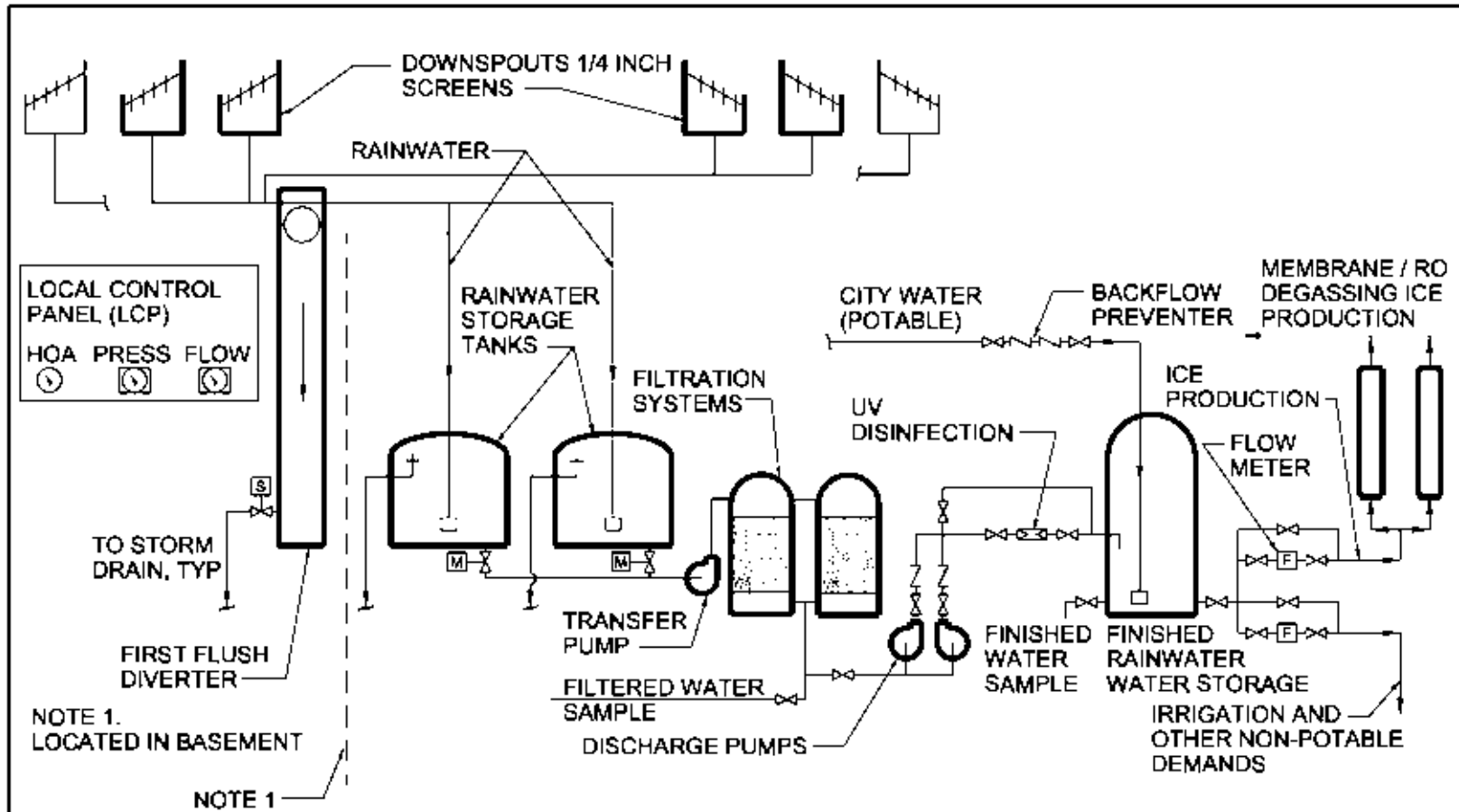


FIGURE 1
RAINWATER REUSE SYSTEM PROCESS DIAGRAM
WAR MEMORIAL ARENA
SYRACUSE, NY

381098_FIG_1.dgn

CH2MHILL



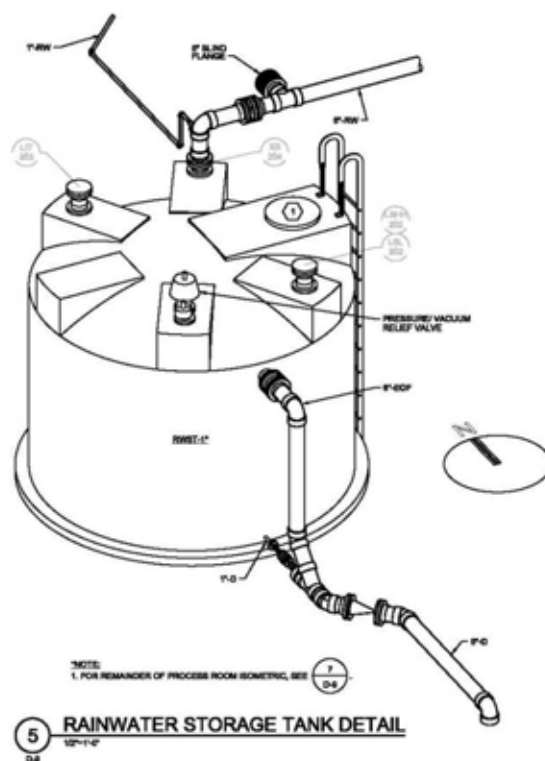
FACT SHEET

War Memorial Cistern System

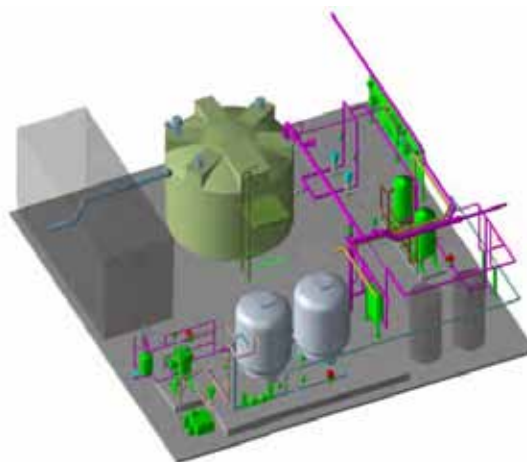
Project:	War Memorial Cistern System
Project Location:	200 Madison St.
Project Owner:	Onondaga County
Sewershed:	Clinton/Lower MIS
GI Technology:	Rain Cistern
Capture Area:	44,000 sq. ft.
Run-off Reduction:	400,000 gal/yr
Year Completed:	2011
Construction Cost:	\$1,600,000 (est.)
Bid Date:	6/29/11
Prime Contractor:	CO Falter Construction

Project Description: The OnCenter War Memorial Arena Rainwater Reuse System Project is located on the site of the Onondaga County War Memorial Arena, bounded by Madison, South State, Harrison, and Montgomery Streets. Since 1951, the War Memorial has been home to countless concerts, conventions and various community events. The Arena is currently the home of the Syracuse Crunch Hockey team of the AHL.

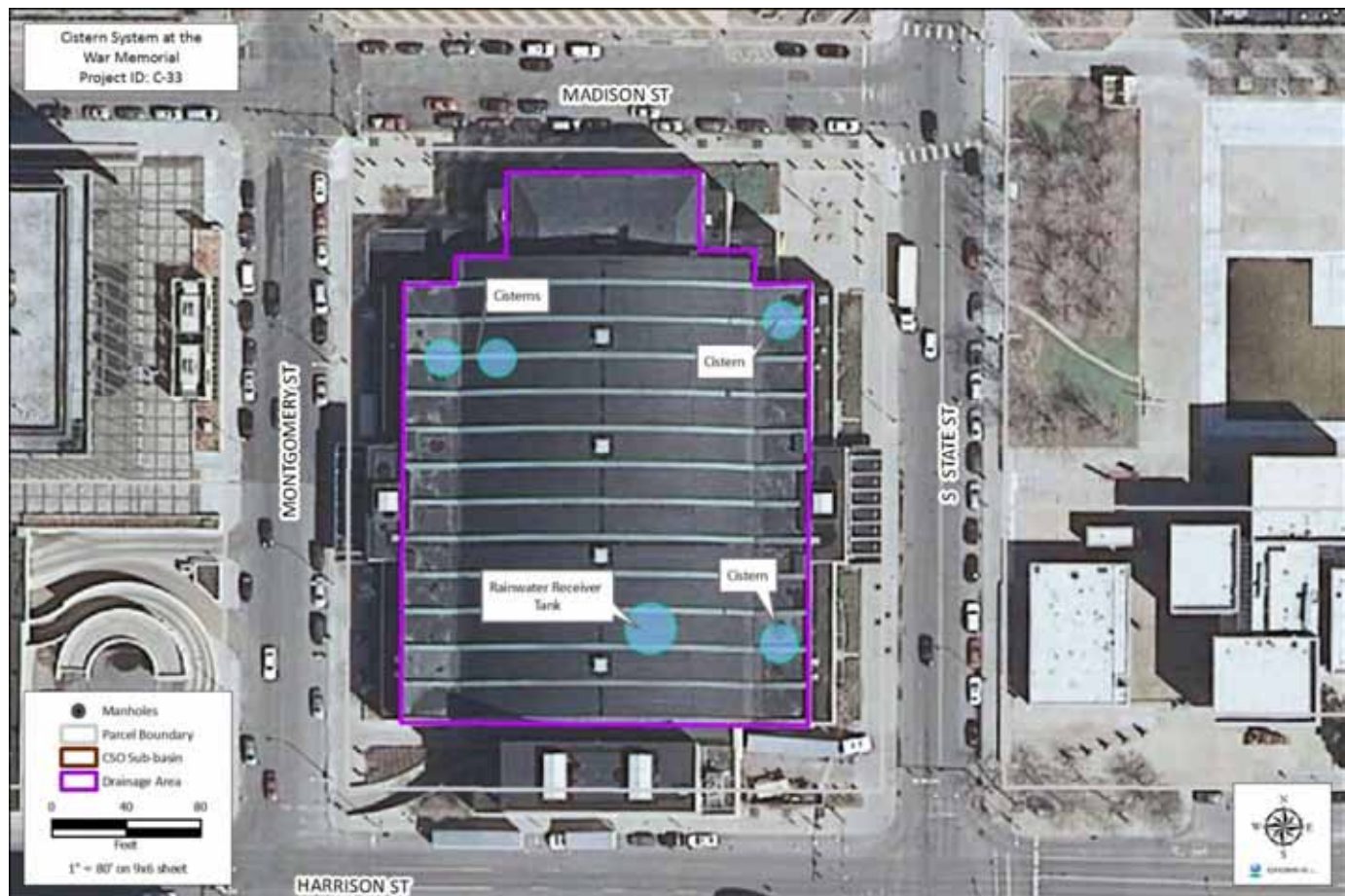
The innovative water re-use system will be located within the basement of the Arena and involves the design and construction of approximately 15,000 gallons of below-ground rainwater storage, in addition to the installation of filtration, disinfection, and water reuse technology. The project is intended to recapture rain water and snow melt runoff from the War Memorial Arena roof, reusing the captured runoff primarily for ice production and ice maintenance for events at the arena, including sporting events and family entertainment.



Aerial View of the War Memorial



Rainwater Reuse System
Central Treatment Process



Month	Ice Events Water Demand (gallons)	Water Demand Other (gallons)	Total Water Demand (gallons)	Avg Daily Demand (gallons)	Capture Volume (gallons) ¹	End of Month Storage (gallons) ²
Start Storage Volume						11,200
January	24,000	-	24,000	1,100	26,000	1,300
February	24,000	-	24,000	900	18,000	-
March	24,000	-	24,000	800	60,000	13,700
April	24,000	-	24,000	800	73,000	10,200
May	-	31,000	31,000	1,000	73,000	15,000
June	-	25,000	25,000	800	32,000	15,000
July	-	-	-	-	54,000	15,000
August	-	27,000	27,000	900	76,000	15,000
September	-	-	-	-	94,000	14,000
October	35,000	-	35,000	1,100	49,000	3,700
November	24,000	-	24,000	800	51,000	13,500
December	35,000	-	35,000	1,100	50,000	11,200

¹ Capture Volume includes flow slowly released back to sewer

² Storage Based on Design Year Precipitation and Capture

Estimated Water Savings Range (Design) gallons

127,000 - 300,000

Green Infrastructure Project Status Report

Project C-33: Cistern System at War Memorial

DATE: January 2012

Contractor: General: CO Falter Construction, Electrical: Ridley Electric, HAVC: Joy
Process Mechanical, Plumbing: C&S Plumbing

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Construction Progress

1A. Status Update. Work on the War Memorial project commenced in September 2011. As noted above, four contractors were contracted to provide process mechanical, electrical, general construction and light plumbing. To begin using rainwater for making ice in October a temporary pumping was installed. Although there were some initial challenges (discussed below) rainwater ice was successfully produced in October. Since that time installation of rough electrical and mechanical process plumbing has proceeded. Concrete pads to support water storage tanks have been poured and cured and are either ready to receive tanks or already have tanks mounted in position. Wash-down stations with hose bibs have been completed and hoses supplied. Emergency overflow piping and connections to 2 of 3 sump pumps have also been completed.

Further Action Needed: Close coordination with each contractor is extremely important due to the nature of the complexity of existing mechanical piping, HVAC and electrical piping mounted to the concrete ceiling of the basement.

Item #2: System Design and Construction Related Issues

2A. Horizontal Pump Control Panels Dispute. The General Contractor (Contract 1A – C.O. Falter Construction) disputes that the horizontal pump control panels are to be provided by the Electrical contractor and scope of work, citing a question from Contract Addendum 2. CH2M HILL disputes this on the basis that the Contract pay items and technical specifications clearly indicate that these panels shall be provided under the General Contractor's scope of work. When this work was stipulated to be removed unless the Contractor complied, the Contractor complied, with notice that a claim would be supplied at a later date. A final claim from the Contractor is pending.

2B. Booster Pump Modification. During testing and initial startup of the temporary ice making system it was determined fill water to the Zamboni was a very low flow. Upon investigation it was determined that the pumps did not have adequate head to deliver the discharge pressure needed at this point. As a result, a booster pump station change has been designed and submitted to the Contractors for pricing.

Further Action Needed: As of this report, draft pricing has been received from 3 of the 4 contractors. This pricing is under review by then Engineer and County.

2C. Scheduling. Due to the complexity of this project, the number of contractors (4) involved and the conflicting schedules related to the War Memorial public activities (hockey, speakers, car show, etc.) it is especially critical to maintain a high level of communication between all parties. The goal is to work safely amid the activities and maintain regular work schedules for the contractors to avoid claims due to delays.

Further Action Needed: As of this report, the contractors have been asked to update their schedules based on a resumption of work well.

Item #3: Public Outreach

3A. Save the Rain Website. The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place. Further outreach was performed in the form of Save the Rain project banners that were displayed on the security fencing around the site. These banners informed the public of the work that was to be done while providing a visual rendering of the completed project.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project, as was the case with the Water Street Green Gateway project.

Project Metrics Summary

Bid Price	\$1,229,241
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$1,229,241
Total CSO Reduction	285,000 gallons
Cost per CSO Reduction	\$4.31 per gallon



Project ID/Name: C-34 Green Roof at OnCenter

Proj Address: 800 S. State Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	66,000	66,000	1,162,000
Total	66,000	66,000	1,162,000
Annual CSO Reduction (gal)			825,020





FACT SHEET

OnCenter Convention Center Green Roof

Project Description: The storm water retrofit at the OnCenter Complex is one of several GI projects being constructed on site at the Convention Center. The OnCenter is home to countless entertainment attractions for local, regional and national audiences. Since 1992, the OnCenter has been the premiere convention location for the region.

The Green Roof at the OnCenter involves the installation of a green roof system on the 59,000+ square foot rooftop of the Convention Center. The design consists of a waterproof membrane liner that is covered with a layer of lightweight growing medium, and planted with a mix of sedums (low-growing succulent vegetation). The new rooftop landscape is a self-sustaining system, requiring little maintenance once established, and relies upon natural processes to retain and evapotranspire storm water runoff. Upon completion of the project, the green roof will be one of the largest in the Northeast region.

Project:	OnCenter Green Roof
GI Technology:	Green Roof
Project Location:	800 South State Street
Project Owner:	Onondaga County
Sewer shed:	Clinton/Lower MIS
Capture Area:	59,000 Square Feet
Run-off Reduction:	1,033,000 Gallons/PY
Year Completed:	2011
Construction Cost:	\$1,038,000 (bid)
Prime Contractor:	J&B Installations



Existing site conditions

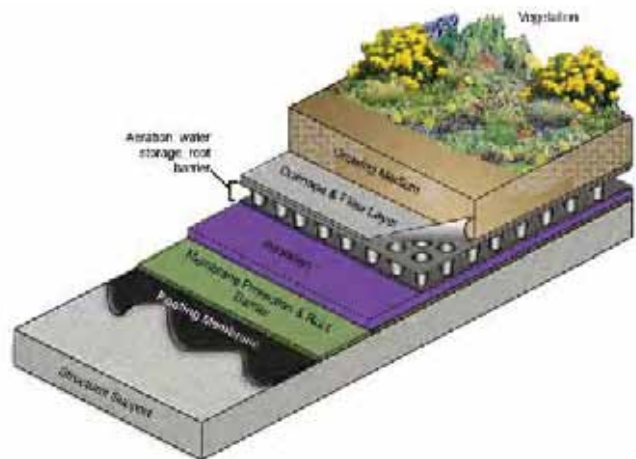
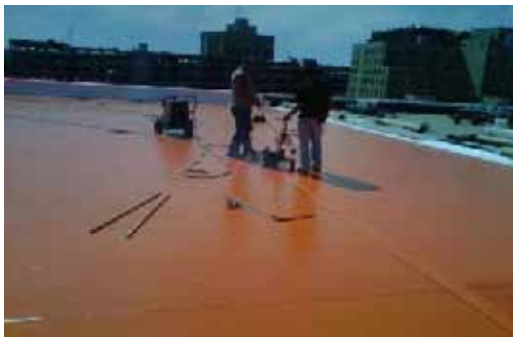


Diagram of Green Roof Implementation



Application of Roof Membrane



Examples of Green Roof Implementation

Green Infrastructure Project Completion Report

Project C-34: OnCenter Convention Center Green Roof

DATE: January 2012

Contractor: J&B Installations

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Construction Delays

- 1A. Bowling Conference.** During construction while fastening the roofing material to the roof deck with anchors, metal filings were falling from the roof onto the bowling alley below. As a result, the contractor was instructed to work on a different part of the roof until the bowling conference was over. However, the contractor quickly ran out of roof space to work on, and stopped work for a period of time over the summer. This created a delay in the completion of the project; however a change order for time extension was not necessary. The documents provided Onondaga County Facilities Management (OCFM) some flexibility in resolution of project issues. OCFM traded stone hauling for contract extension and costs associated with temporary stabilization of the roof, claimed by the Contractor.

Item #2: Roof Deflection

- 2A. Roof Deflection.** During the period of time between when the stone ballast was removed and the growth media was installed on the roof, deflection of the roof occurred, which caused disconnections between the roof leaders and the roof drains. The OC facilities management department fixed this issue by installing flexible couplings (that they planned to do eventually) on the connections between the roof leaders and drains.

Further Action Needed: On future green roof projects, the amount of stone ballast that can be removed by the contractor at any one time will be specified as to prevent deflection from occurring.

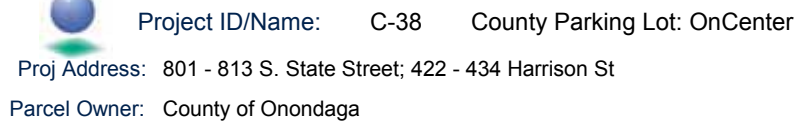
Item #3: Public Outreach

- 3A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project specifications, design plans and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$1,038,000
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$1,038,000
Total CSO Reduction	734,000 gallons
Cost per CSO Reduction	\$1.41 per gallon



County Parking Lot C-38
OnCenter
Project ID: C-38

24-in Trunk
72-in Combined
16-in Sanitary
36-in Storm
72-in Storm

HARRISON ST

Enhanced Street Trees

Standard Pavement Lot

Porous Pavement Parking Lot
(Perimeter of lot only)

42-in Storm S. TOWNSEND ST

Manholes
Combined Sewer
Sanitary Sewer
Storm Sewer
Trunk Sewer
Parcel Boundary
CSO Sub-basin
Drainage Area

0 40 80
Foot
1" = 80' on 9x6 sheet

Annual CSO

Total	134,000
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FACT SHEET

OnCenter Surface Lot

Project Description: The project will take place at the existing surface parking lot across the street from the site of the historic War Memorial Arena. The OnCenter is home to countless entertainment attractions for local, regional and national audiences. Since 1992, the OnCenter has been the premiere convention location for the region.

The Surface Lot is the site of a storm water retrofit project that will repave the existing parking lot with porous asphalt. In addition to the pavement resurfacing, the project features the design and construction of an infiltration trench along three sides of the parking lot to manage runoff from the entire lot as well as from adjacent streets. The project also features a new tree infiltration trench and a new section of sidewalk.



Porous Asphalt

Project:	OnCenter Surface Lot
GI Technology:	Porous Pavement and Tree Trench
Project Location:	801-813 S. State Street
Project Owner:	Onondaga County
Sewer shed:	Clinton/Lower MIS
Capture Area:	134,000 Square Feet
Run-off Reduction:	2,360,000 Gallons/PY
Year Completed:	2011
Construction Cost:	\$812,000 (est.)
Bid Date:	7/21/11



Existing site conditions

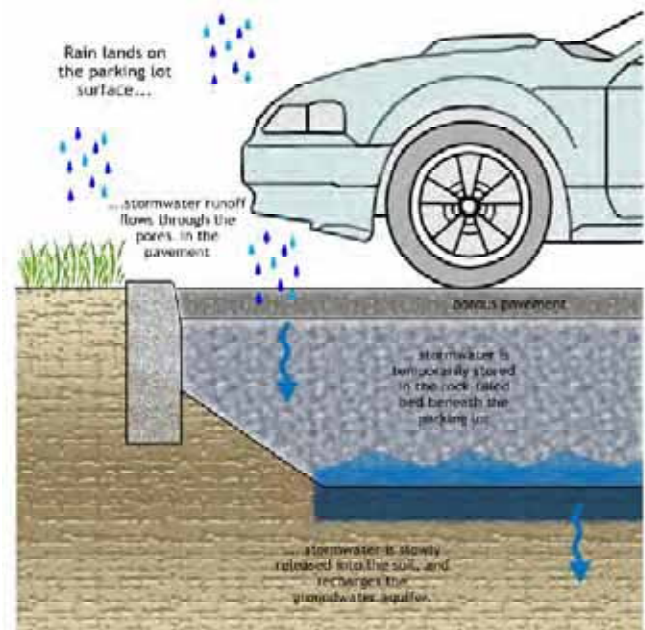


Diagram of Porous Pavement

Green Infrastructure Project Completion Report

Project C-38: OnCenter Surface Lot

DATE: January 2012

Contractor: Economy Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Porous Asphalt Locations.** At the OnCenter Parking Lot, porous asphalt was located around the perimeter of the parking lot to promote capture from runoff from the interior of the parking lot. However, shortly after installing new pavement and reopening the parking lot, it was discovered that two tractor trailers were parked on top of the porous asphalt. This caused minor damage (depressions) to the porous asphalt. OnCenter personnel relocated the tractor trailers once the issue was brought to their attention.

Further Action Needed: Property owners will be more thoroughly educated on use limitations in the time immediately after porous pavement installation to prevent damage from occurring.

Item #2: Unforeseen Conditions

- 2A. Asphalt Thickness.** During excavation, it was determined that existing asphalt thickness (specified to be milled to a depth of 2" and repaved) was only 2" as opposed to 4" thick (as boring logs indicated), preventing milling from occurring. To achieve the specified finish asphalt thickness of 3.5" it was determined that the full thickness of existing asphalt would first be milled in place, and millings used to uniformly regrade the entire lot. A 2" binder course and 1.5" top course were subsequently installed. A change order to the contractor's contract has been processed. Additional costs of the full depth asphalt replacement are to be covered out of the OC Facilities Management budget.

Further Action Needed: Future subsurface borings will conduct standard split spoon characterization at 1" depth intervals for the first 2-feet below grade to more precisely characterize pavement and subbase thicknesses.

Item #3: Trees and Plantings

- 3A. Trees and Plantings.** No trees or landscaping plantings were installed in 2011 due to the specified planting date restrictions.

Further Action Needed: All plantings will occur in spring 2012 during the specified planting season.

- 3B. Planting Strip between Surface Lot and Parking Garage.** After construction of the parking lot and installation of associated lighting (by OC Facilities Management), it was decided that the 6 foot strip between the parking garage and surface lot would be planted with various vegetation types. The purpose of these plantings is to mitigate traffic across the median, as well as capture some areas of parking impervious not tributary to the porous asphalt.

Further Action Needed: As of the date of this report, the planting scheme is being finalized and a quote for the extra work will be obtained from the contractor in 2012. Plantings will occur in 2012 during the specified planting season.

Item #4: Coordination with Other Entities

- 4A. Synapse Risk Management.** Prior to construction, coordination with Synapse Risk Management for the installation of electrical car charging station occurred. However, just prior to construction commencing, it was discovered that the car charging stations were to be located in the same locations as the handicap parking spaces. This conflict was resolved and the car charging stations were relocated to the northern edge of the parking lot with only minimal delay.
- 4B. OC Facilities Management.** Just prior to construction beginning OC Facilities Management developed a plan for installing new light fixtures around the OnCenter Parking Lot. The original plan conflicted with the stormwater plan and revisions were required. The plan was revised and the light fixtures were installed with minimal delay to the project as whole.

Further Action Needed: For future projects on Onondaga County property (or property managed by OC Facilities Management), additional work to be completed by OC Facilities Management will be brought to CH2M HILL's attention during the design phase of the work to properly plan for the work prior to construction starting.

Item #5: Topographic Survey

- 5A. Topographic Survey during Winter Months.** The topographic survey for the OnCenter Parking Lot was completed during the winter of 2010/2011 when parts of the parking lot were being used as snow storage areas. As a result, some details of the existing site conditions were not surveyed.

Further Action Needed: For all future surveys completed during winter months while snow or snow storage piles are present, the surveyor will be asked to return to the site when all snow has melted to ensure that no details were missed in the original survey.

Item #6: Parking Lot Details

- 6A. Parking Lot Striping Plans.** A new parking lot striping plan was not developed for the OnCenter Parking Lot. Following the installation of new pavement, it was determined that the previous parking lot striping (which was to be matched in the new parking lot) did not meet ADA and MUTCD standards. The parking lot striping plan was revised to meet standards and as a result, some parking spaces were lost.

Further Action Needed: For future parking lot projects, the existing parking lot striping will be reviewed for compliance with ADA and MUTCD standards. In the event the existing striping does not meet standards, a new parking lot striping plan will be developed and submitted to the Owner for review and concurrence.

- 6B. Handicap Parking Space Signs.** It was determined during construction that handicap parking spaces require not only specific striping and markings, but also a handicap parking space sign. Signs will be installed in the OnCenter Parking Lot.

Further Action Needed: For handicap parking spaces in parking lots and on green streets, handicap parking space signs will be specified in the Contract Documents.

Item #7: Public Outreach

- 7A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$529,040
Change Order Total (as of 12/31/11)	\$149,778.39*
Total Project Cost (as of 12/31/11)	\$529,040
Total CSO Reduction	1,676,000 gallons
Cost per CSO Reduction	\$0.32 per gallon

*Asphalt Thickness Change Order to be paid for out of OC Facilities Management Budget



Project ID/Name: C-42 Private Parking Garage: Atrium

Proj Address: S. Franklin St and W Washington St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Cistern/Rain Barrel	6,000	000	38,000
Total	6,000	0	38,000
Annual CSO Reduction (gal)			26,980





FACT SHEET

Atrium Garage Pilot Stormwater Cistern

Project Description: The Atrium Garage is a pilot Stormwater Cistern Project, which is the first of its kind to be constructed as part of the Save the Rain program. Phase 1 of this pilot project will reduce runoff by 38,400 gallons per year, by intercepting stormwater from one of the drain inlets on the top floor of the Atrium Garage parking deck. The suitability of the design will be monitored after installation so that future cistern projects can be optimized for performance.

The parking deck is drained via multiple inlets on the top floor, which are conveyed by 4-inch diameter roof drains to a discharge pipe in the ground floor slab, and out to the combined sewer system. By intercepting one of these 4-inch roof drains on the ground floor with a cistern tank, the discharge opening is reduced via a 1-inch diameter opening that allows the runoff to collect in the tank and slowly discharge into the combined sewer system after the rain has subsided.

The proposed 500-gallon polyethylene cistern tank will feature a bypass system that will allow normal flow from the roof drain when the tank is completely filled. The tank is sized to fit within a vacant area of the parking deck, so that no existing parking spaces will be lost.

Project:	Atrium Garage Pilot Stormwater Cistern
Project Owner:	Partnership Properties
Project Location:	201 S. Franklin Street
Sewershed:	Clinton/ Lower MIS
GI Technology:	Stormwater Detention Cistern
Capture Area:	6,000 sq. ft.
Run-off Reduction:	38,400 gal/yr
Year Completed:	2011
Construction Cost:	\$15,000 (<i>Engineer's Estimate</i>)
Prime Contractor:	Plumbers Association



Existing Conditions



Conceptual Rendering of Stormwater Cistern

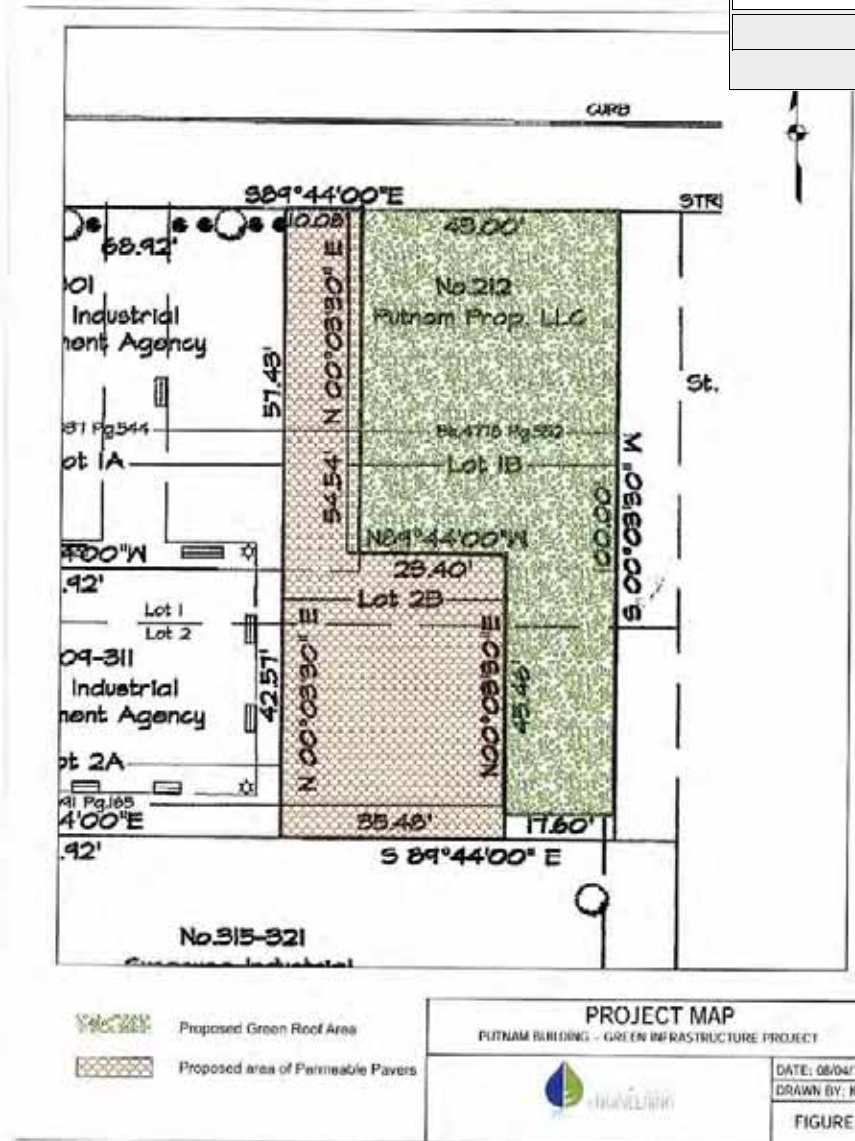


Project ID/Name: C-45 GIF#018 Putnam Properties

Proj Address: 210 E. Fayette St.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	3,000	3,000	56,000
Porous Pavement Parking Lot	1,000	1,000	25,000
Total	4,000	4,000	81,000
Annual CSO Reduction (gal)			57,510





Project ID/Name: C-48 Green Roof at Erie Canal Museum and Visitor Center

Proj Address: 318 Erie Blvd. East

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	2,200	2,200	38,746
Total	2,200	2,200	38,746





FACT SHEET

Erie Canal Museum Green Roof

Project Description: The project will take place on the site of the Erie Canal Museum, located on East Water and Market Street and is known for having a comprehensive collection of Erie Canal related documents, photographs, prints, and rare books. Founded in 1962, the museum is housed in the National Register 1850 Weighlock Building.

The Erie Canal Museum storm water retrofit project features the installation of a green roof on one of the main buildings at the Erie Canal Museum & Visitor Center. The green roof will feature plantings in a lightweight growing medium on top of a waterproof membrane, designed to capture storm water, irrigate plantings, and allow excess storm water to evapotranspire - ultimately, preventing storm water from leaving the rooftop and entering the combined sewer system.

Project:	Erie Canal Museum
GI Technology:	Green Roof
Project Location:	318 Erie Blvd. East
Project Owner:	Onondaga County
Sewer shed:	Clinton/Lower MIS
Capture Area:	2,000 Square Feet
Run-off Reduction:	39,000 Gallons/PY
Year Completed:	2011
Construction Cost:	\$40,480 (conceptual)
Bid Date:	6/2/11
Prime Contractor:	J&B Installations



Before



Example of Green Roof Implementation

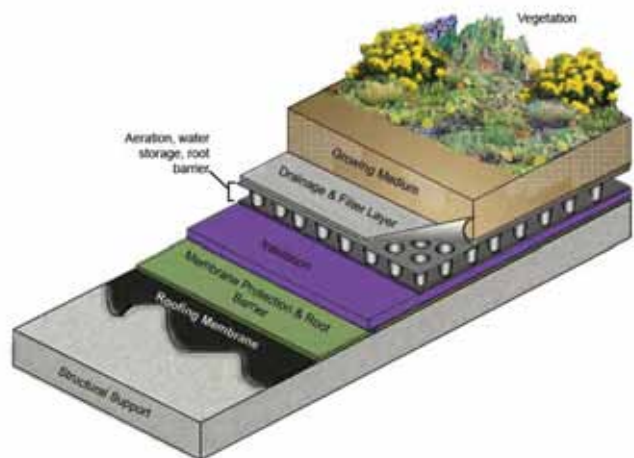


Diagram of Green Roof Implementation

Green Infrastructure Project Status Report

Project C-48: Erie Canal Museum Green Roof

DATE: January 2012

Contractor: J&B Installations

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Growth Medium Thickness.** The green roof growth medium thickness was specified as 2-1/2" thick, versus the typical 3-4 inch thick medium. This was specified to reduce the loading on the building roof, and as a pilot for future green roof projects. Although less than the typical green roof growth media thickness, it is expected that the Erie Canal Museum Green Roof will support its plantings due to the climate and amount of rainfall in the Syracuse area.

Further Action Needed: The Erie Canal Museum Green Roof will be monitored over the coming years to determine its success with the thinner than typical growth medium section.

Item #2: Trees and Plantings

- 2A. Green Roof Sedum.** Due to the work on the 300 block of East Water Street, the contractor was unable to mobilize at the Erie Canal Museum until late in 2011. As a result, only waterproofing of the roof was completed. The installation of the growth medium and sedum did not occur because doing so would be out of specification and thus void any associated warranties.

Further Action Needed: The growth medium and sedum cuttings will be installed in the spring of 2012 during the specified planting period which will complete all work at the Erie Canal Museum.

Item #3: Public Outreach

- 3A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$73,480
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$73,480
Total CSO Reduction	28,000 gallons
Cost per CSO Reduction	\$2.62 per gallon



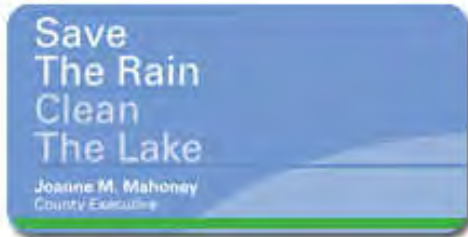
Project ID/Name: C-54c Downtown Committee Streetscape Grant Projects

Proj Address: 100-200 blocks E Water

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Enhanced Street Trees	7,854	951	138,000
Total	7,854	951	138,000





Project:	Downtown Streetscapes
Project Owner:	City of Syracuse
Project Location:	300 Block of Montgomery St. & 200 Block of E Water St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Enhanced Street Trees
Capture Area:	17,000 sq. ft.
Run-off Reduction:	300,000 gal/yr
Year Completed:	2011
Construction Cost:	\$177,300 (est.)
Bid Date:	8/9/11
Prime Contractor:	Davis Wallbridge

FACT SHEET

Downtown Streetscapes

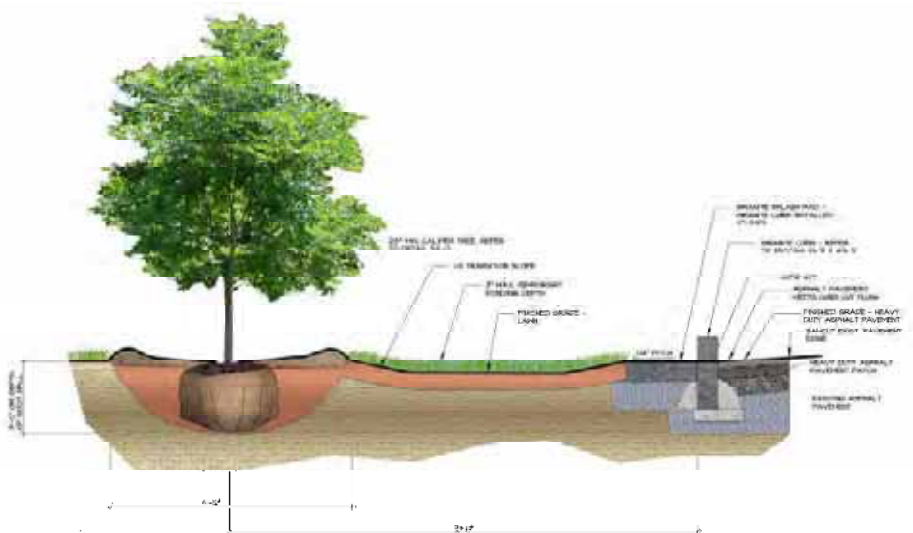
Project Description: Onondaga County is working with the City of Syracuse to develop streetscape improvements on E. Water and Montgomery streets. The designs include the planting of enhanced street trees in the right-of-way and curb extensions at the intersections of S. Salina & Montgomery streets

The enhanced tree pit design provides a wide storage and soil trench area for trees to maximize stormwater intake. This enhanced tree system will have a dramatic effect on the growth, vitality, and lifespan of the tree.

The project is part of the "Save the Rain" Urban Forestry program that will plant over 8,500 trees by 2018 and is part of the long term strategic vision for a green corridor along E. Water Street from S. Warren Street to Erie Boulevard.



Proposed Street Tree Species



Example of Enhanced Tree Pit Detail

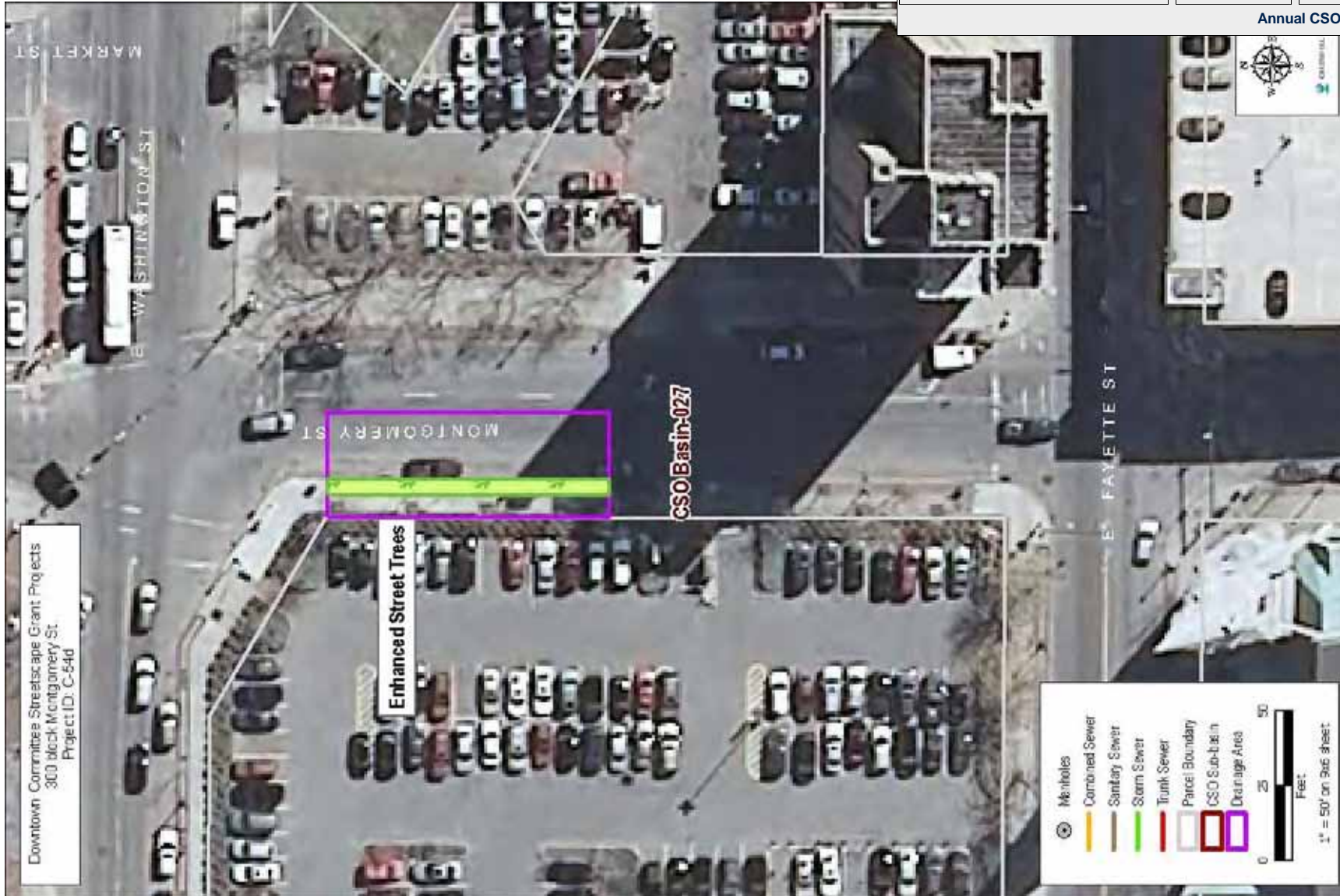


Project ID/Name: C-54d Downtown Streetscape Grant Projects @ Montgomery St

Proj Address: 300 block Montgomery

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Silva Cells High	10,000	1,000	168,000
Total	10,000	1,000	168,000
Annual CSO Reduction (gal)			119,280





Project:	Downtown Streetscapes
Project Owner:	City of Syracuse
Project Location:	300 Block of Montgomery St. & 200 Block of E Water St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Enhanced Street Trees
Capture Area:	17,000 sq. ft.
Run-off Reduction:	300,000 gal/yr
Year Completed:	2011
Construction Cost:	\$177,300 (est.)
Bid Date:	8/9/11
Prime Contractor:	Davis Wallbridge

FACT SHEET

Downtown Streetscapes

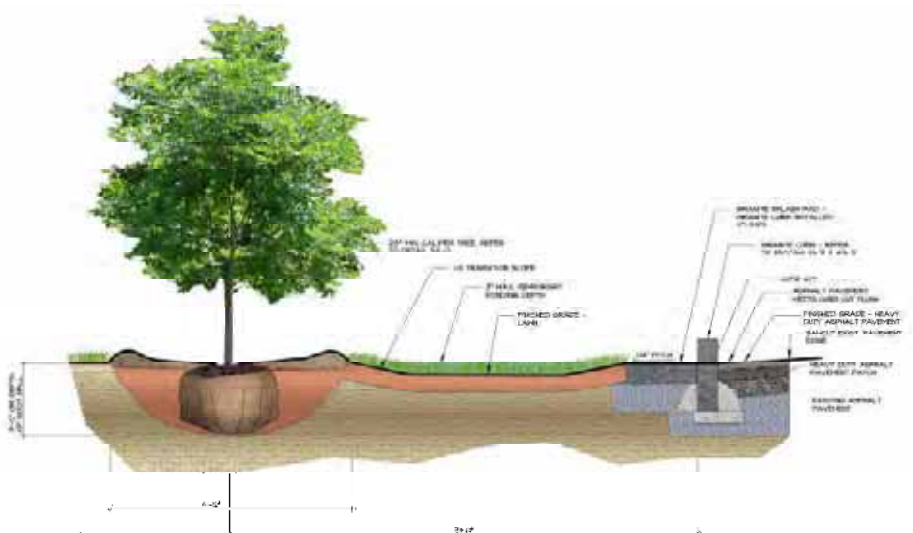
Project Description: Onondaga County is working with the City of Syracuse to develop streetscape improvements on E. Water and Montgomery streets. The designs include the planting of enhanced street trees in the right-of-way and curb extensions at the intersections of S. Salina & Montgomery streets

The enhanced tree pit design provides a wide storage and soil trench area for trees to maximize stormwater intake. This enhanced tree system will have a dramatic effect on the growth, vitality, and lifespan of the tree.

The project is part of the "Save the Rain" Urban Forestry program that will plant over 8,500 trees by 2018 and is part of the long term strategic vision for a green corridor along E. Water Street from S. Warren Street to Erie Boulevard.



Proposed Street Tree Species



Example of Enhanced Tree Pit Detail

Green Infrastructure Project Completion Report

Project C-54d: Downtown Streetscapes: 200 Block of Water Street

DATE: January 2012

Contractor: Davis Wallbridge

Presented herein, for the noted site, is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Silva Cells.** Silva cells were used on the 200 block of East Water Street to provide supplemental soil volume for new trees planted along the street. The goal of Silva cells is to provide more substantive room for the placement of select soil in which to establish root systems. This will allow the trees to grow larger and have a longer lifetime than other trees planted without the Silva cells.

Further Action Needed: The growth and survivability of the trees and other plantings will be monitored in the future to evaluate the use of Silva cells and other soil volume increasing materials for use on future projects.

Item #2: Trees and Plantings

- 2A. Trees and Plantings.** All trees were planted in the fall of 2011 during the specified planting season.

Further Action Needed: Tree survivability will be monitored in 2012 during the one year warranty period. Trees will be replaced under warranty as needed.

Item #3: Unforeseen Conditions

- 3A. Unknown Vault.** During excavation, a large subsurface vault was uncovered that extended from the front of the building to inside of the curb. Upon investigation, it was determined that the vault was an extension of a basement and in active use. As a result, the tree trench was bisected by the vault, leaving two unconnected sections. During excavation a water line into one of the buildings was disturbed and required repair by the Contractor.

Further Action Needed: Known subsurface vaults are marked on all contract documents, and the contractor is required to call Dig Safely NY prior to construction to mark all known utilities. In this situation the Contractor had followed proper protocol and the vault was not shown on City records or the plans. The Contractor completed repair of the water line at no additional cost

Item #4: Public Outreach

- 4A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, plans and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

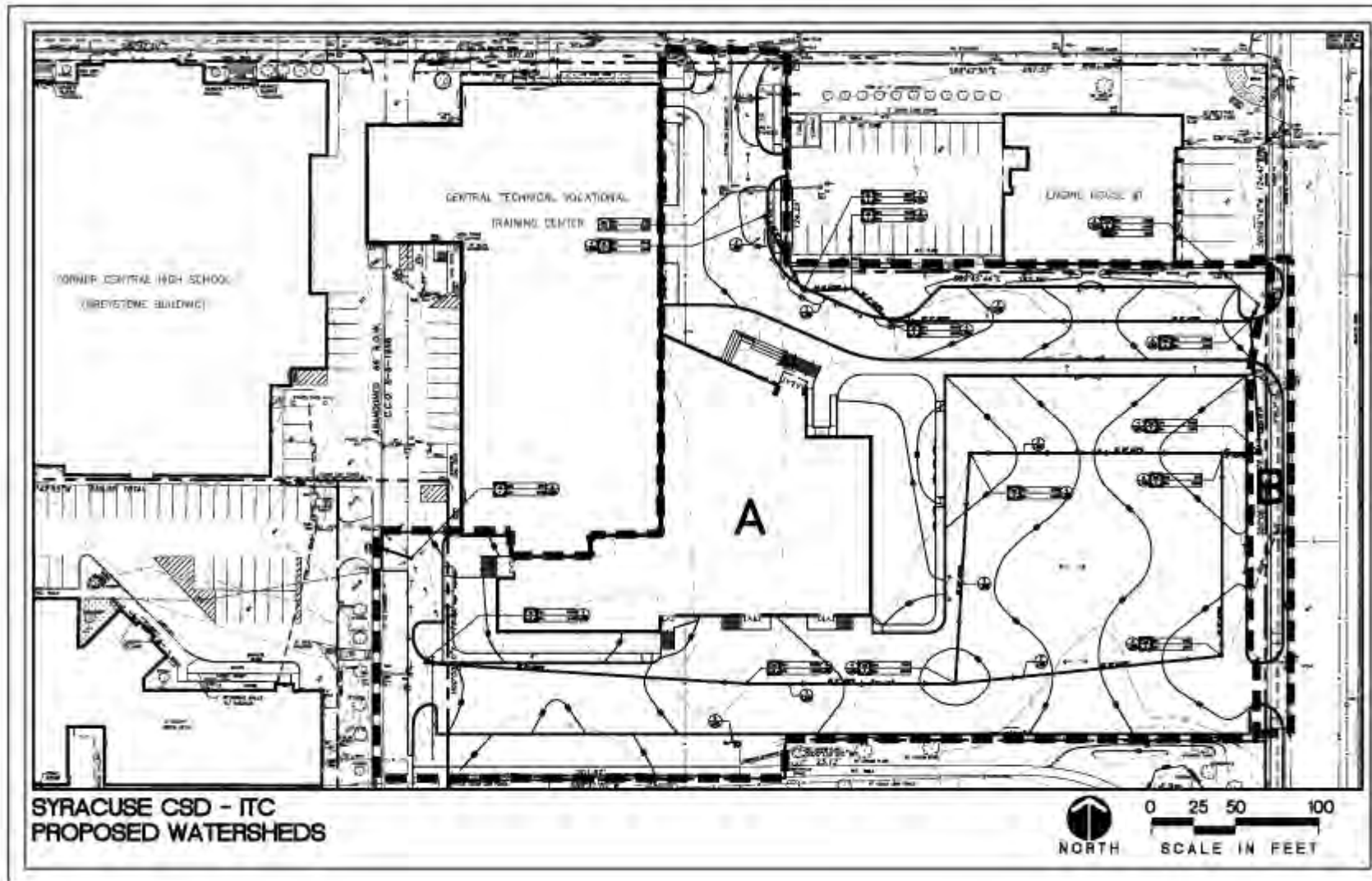
Bid Price	\$96,600
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$96,600
Total CSO Reduction	119,000 gallons
Cost per CSO Reduction	\$0.81 per gallon



Project ID/Name: C-55 City School: Institute of Technology

Proj Address: 258 E. Adams St.

Parcel Owner: Syracuse City
School District





FACT SHEET

SCSD Institute of Technology

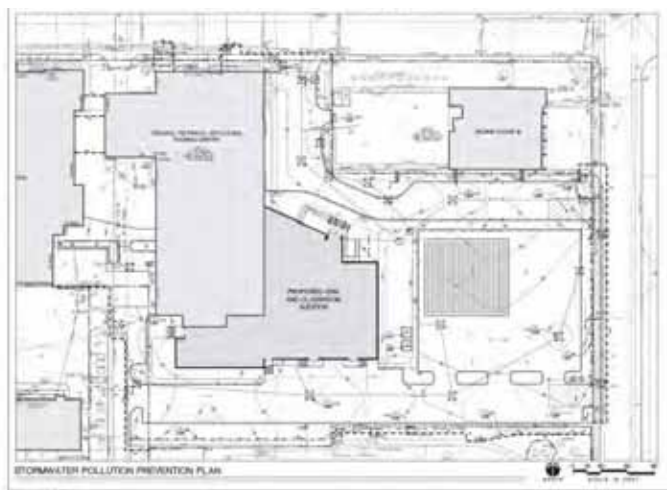
Project:	SCSD Institute of Technology
Project Owner:	Syracuse City School District
Project Location:	258 E. Adams St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Sewer Separation with Water Quality Treatment
Capture Area:	128,000 sq. ft.
Run-off Reduction:	2,251,000 gal/yr
Year Contracted:	2011
Construction Cost:	\$0 (No County Funding)
Prime Contractor:	Christa Construction

Project Description: The stormwater retrofit project at the Syracuse City School District (SCSD) Institute of Technology, located at 258 E. Adams Street, is part of the on-going collaboration between Onondaga County, the SCSD, and the City of Syracuse. The school was originally built in 1900 and was added to the National Register of Historic Places in 1981.

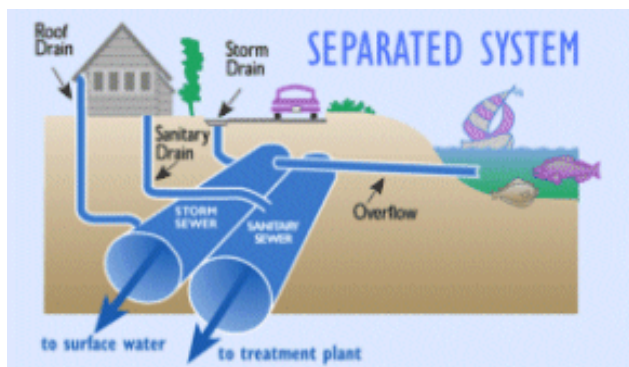
The project features sewer separation with water quality treatment as part of an overall renovation and expansion at this site which includes parking lot resurfacing and a new building addition to the main facility. Sewer separation involves the installation of new pipelines to specifically collect and transmit stormwater to the nearest water body, while the existing sewer pipeline remains in place to solely convey sewage to a treatment plant. The two separated pipe networks greatly alleviate the amount of stormwater that enters the sewer system and allows greater management of wet-weather flow.



Aerial View of SCSD Institute of Technology



Proposed Building Addition and Stormwater Plan



Schematic of Separated Sewer (EPA)

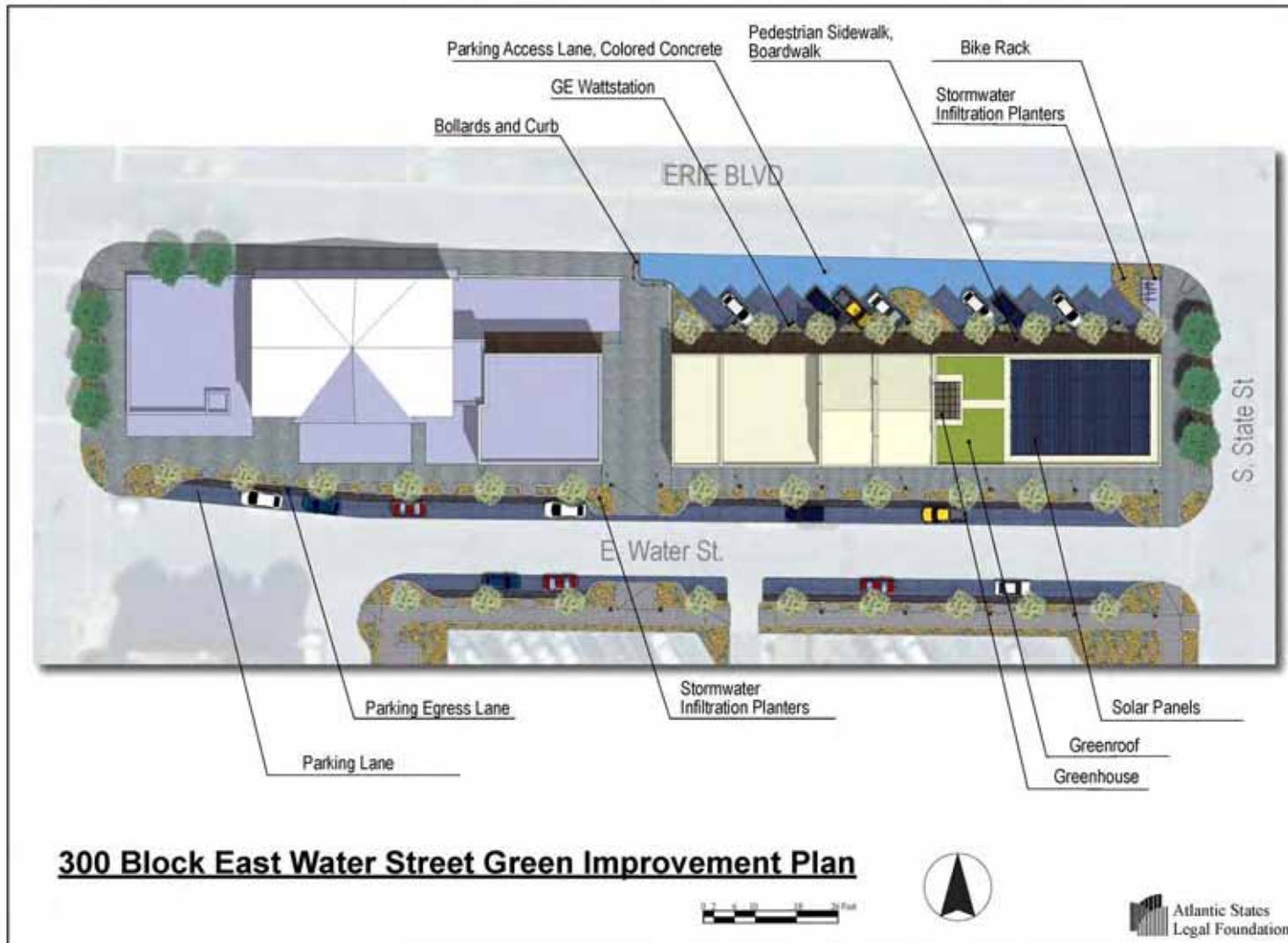
Version 12/30/2011

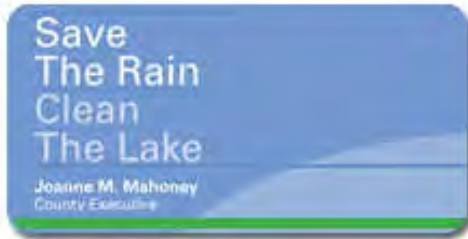


Project ID/Name: C-61 Gateway Project at Water Street

Proj Address: 300 Water Street

Parcel Owner:





Project:	Water Street Gateway
Project Owner:	City of Syracuse
Project Location:	300 Block Water St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Infiltration Trench, Porous Pavers
Capture Area:	53,000 sq. ft.
Run-off Reduction:	924,000 gal/yr
Year Completed:	2011
Construction Cost:	\$975,000 (est.)
Prime Contractor:	Davis Wallbridge

FACT SHEET

Water Street Gateway

Project Description: The Water Street Gateway Project will be a comprehensive 'green' street application located on the 300 block of Water Street and is the first of the "Save the Rain" gateway projects intended to demonstrate green infrastructure applications at key entry points into the City. The design will include the installation of several green infrastructure elements that will capture stormwater and enhance the urban landscape.

The project scope will incorporate streetscape tree detail with enhanced tree plantings in the right-of-way; installation of porous pavers in parking lanes; use of infiltration trenches and planters; and additional landscaping features throughout the footprint of the block.

The project is being developed in conjunction with the private renovation of 323, 325, and 327 E. Water Street and is part of the long term strategic vision for a green corridor along E. Water Street from S. Warren Street to Erie Boulevard.



**300 Block of Water St.
Before Construction**



**Porous Pavers – 300 Block Water St.
(North Side of the Street)**



Water St. Gateway – Rendering of Completed Project

Version 12/22/2011

Green Infrastructure Project Status Report

Project C-61: Water Street Green Gateway

DATE: January 2012

Contractor: Davis Wallbridge

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater and Site Details and Specifications

- 1A. Porous Paver Color.** During construction, City DPW requested that porous pavers in the porous parking lane on both sides of the 300 block of East Water Street match the color of Hanover and Clinton Squares (grey). This was in contrast to what was originally approved (red). However, the contractor was able to have the paver supplier stockpile the delivered red pavers for future green infrastructure (GI) projects. Ultimately grey pavers were ordered and installed on the South side of the street in 2011.

Further Action Needed: City DPW, other City entities and property owners, will clearly specify all paver colors and the like for future green infrastructure projects during the design phase of the project. The stockpiled red pavers will be used on several GI projects in 2012.

- 1B. Porous Paver Installation.** During construction of several non-County procured GI projects in 2011 porous paver installation has come under scrutiny. In several instances porous pavers have been installed improperly (poor joint lines) due to poor planning and execution resulting in small cuts and “slivers” being installed. This did not occur on the Water Street Green Gateway project.

Further Action Needed: Porous paver layout and installation will be monitored closely by CH2M HILL on future County procured GI projects for compliance with the specified installation methods. Further, any improperly installed porous pavers on non-County procured projects will be removed and reinstalled prior to the County providing any funding for the green improvements.

- 1C. Posts and Chains.** The specified posts and chain to be used around the planter boxes were found to be inadequate for the intended use and were thus rejected for installation. The need for posts and chain around the planter boxes is under evaluation and will be given close consideration in the spring of 2012.

Further Action Needed: Future planting beds requiring post and chain perimeters will be specified per the revised design developed for this project. The performance and longevity of the posts and chains will be monitored in the future as well.

Item #2: Trees and Plantings

- 2A. Trees and Plantings Progress.** All trees and shrubs were installed on the north side of Water Street in the fall of 2011 in the specified planting season.

Further Action Needed: Landscaping called for along the south side will be planted along once site civil work is complete. This work will resume in the spring of 2012 and will be completed during the specified planting season.

- 2B. Tree Planting Density and Utility Poles.** Several trees planted on the north side of the Water Street in 2011 were located in close proximity to existing utility poles. The success of these trees will be monitored in the future and, if necessary, will be replaced under warranty in the fall of 2012 and the new trees will be planted with more spacing between the existing utility poles.

Further Action Needed: Future tree plantings will not be planted within 5 feet of utility poles.

Item #3: Coordination with National Grid

- 3A. Utility Pole Removal and Relocation.** During construction, coordination with National Grid was required for the removal and relocation of utility poles, modification of electrical manholes and identification of unmarked large diameter electrical cable along the north side of the Water Street. As a result, National Grid took several weeks to perform this work, which delayed the GI project and caused deferment of the south side work until spring 2012.

Further Action Needed: Future projects involving National Grid (and other utilities), will be coordinated earlier via sharing advanced design plans and invitation to pre-construction meetings. A meeting with National Grid is planned for prior to construction of the south side of 300 Water.

Item #4: Sidewalk Curb Ramp

- 4A. Center Ramp Configuration and Bollard.** The original center curb ramp design on the north side of the Water Street (at the Erie Canal Museum) was revised during the construction phase of the work to match the future Civic Strip improvements in the City of Syracuse. The change included widening the sidewalk, the placement of methacrylate in the sidewalk and installing new bollards at the edge of the sidewalk ramp to alert vehicles and snow plows of the location of the ramp. This change was initiated by Syracuse University, and the additional costs for this change will be covered by the University.

During the end of season walkthrough, the City of Syracuse DPW advised that the sidewalk ramp does not have a transition as currently installed and is susceptible to being struck by snow plows during the winter months. As a result, a modification to the ramp will be implemented in the spring of 2012 to prevent avoid damage to the ramp.

Further Action Needed: Syracuse University will inform CH2M HILL of all future changes to designs prior to construction beginning so that they can be adequately addressed and vetted with the City during the design phase of the project. Syracuse University will fund all additional improvements that are above and beyond the original scope of the project.

Item #5: City Common Council Approval

- 5A. Street Narrowing.** Just prior to construction starting, it was determined through discussion with various City personnel that City Common Council Approval is required for any road narrowing within the Downtown District (boundaries defined as between I-690 and Adams Street and West Street and I-81). The City of Syracuse Department of Public Works and Engineering drafted legislation and received Common Council approval for the road narrowing involved with this project.

Further Action Needed: For future projects involving road narrowing in the Downtown District, CH2M HILL will notify the City of Syracuse Departments of Public Works and Engineering of any proposed road narrowing so that legislation can begin and be finalized prior to construction starting.

Item #6: Subsurface Utility Location

- 6A. Unknown Utilities.** During excavation, several unmarked and unknown utilities were uncovered resulting in delays in the project. The contractor performed their Dig Safely NY call prior to construction as well.

Further Action Needed: The contractors for all of the future green infrastructure projects will continue to make their Dig Safely NY call prior to construction. In the event that an unmarked utility is uncovered, it will be addressed accordingly, and any needed design changes will be implemented.

Item #7: Unforeseen Conditions

- 7A. Verizon Manhole.** During excavation, at the corner of State and Water Streets, a large unmarked Verizon manhole was uncovered. The manhole was struck, causing a short term disruption in service to the commercial businesses in that vicinity. Verizon repaired the damage to the manhole and returned service to those affected in a timely manner.

Further Action Needed: The contractors for all future green infrastructure projects will continue to make their Dig Safely NY calls as specified in the Contract Documents. In the event that an unknown utility or subsurface structure is uncovered, the appropriate provider will be notified, and the contractor will be directed accordingly.

Item #8: Public Outreach

- 8A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place. Further outreach was performed in the form of Save the Rain project banners that were displayed on the security fencing around the site. These banners informed the public of the work that was to be done while providing a visual rendering of the completed project.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project, as was the case with the Water Street Green Gateway project.

Project Metrics Summary

Bid Price	\$920,088
Change Order Total (as of 12/31/11)	\$13,267.60*
Total Project Cost (as of 12/31/11)	\$920,088
Total CSO Reduction	656,000 gallons
Cost per CSO Reduction	\$1.40 per gallon

*Note: The change order for the methacrylate sidewalk and associated bollards is to be paid by Syracuse University.

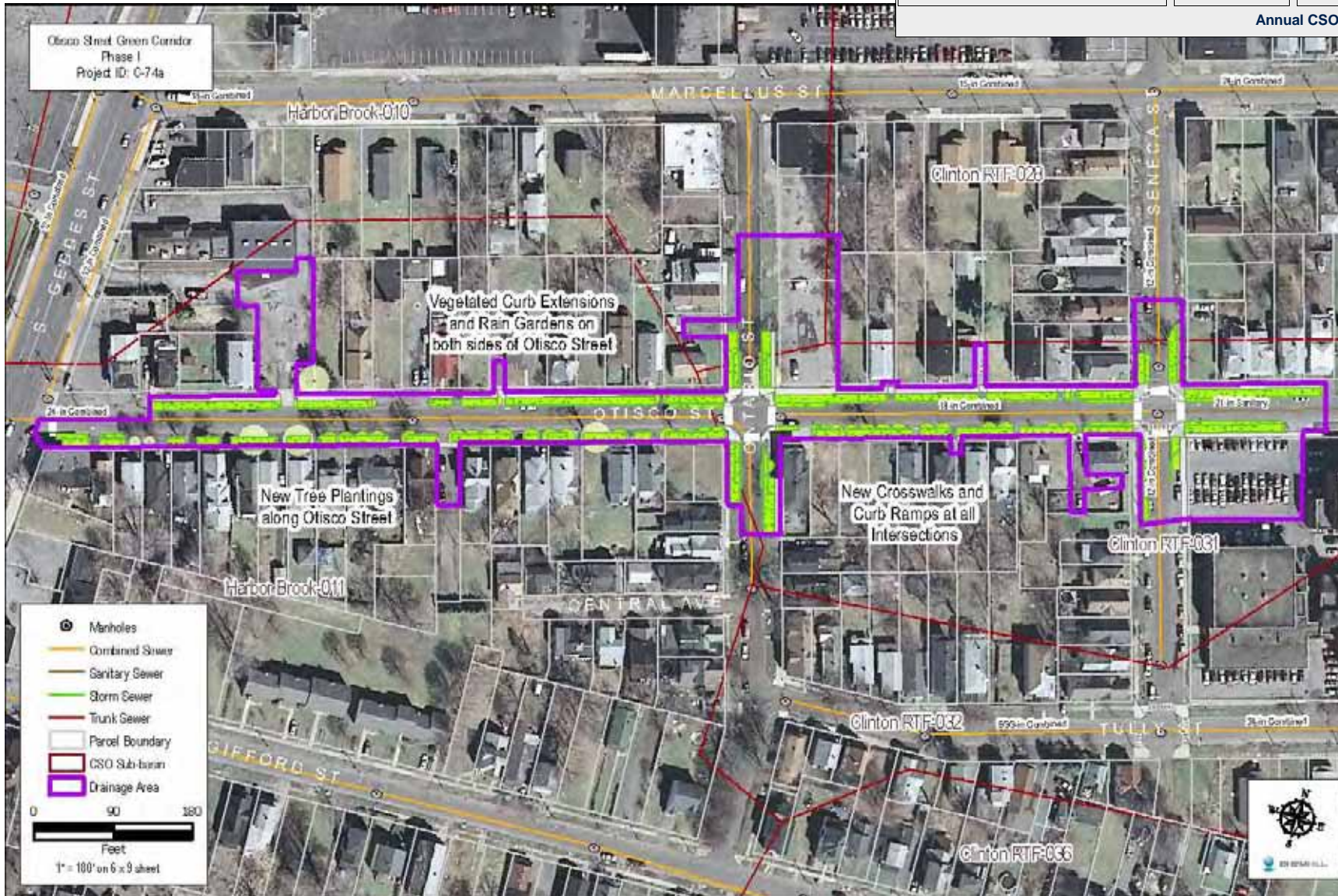


Project ID/Name: C-74a Otisco Street Green Corridor - Phase 1

Proj Address: from Ontario St to Seneca St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Curb Extension	145,000	14,000	2,561,000
Total	145,000	14,000	2,561,000
Annual CSO Reduction (gal)			1,818,310





FACT SHEET

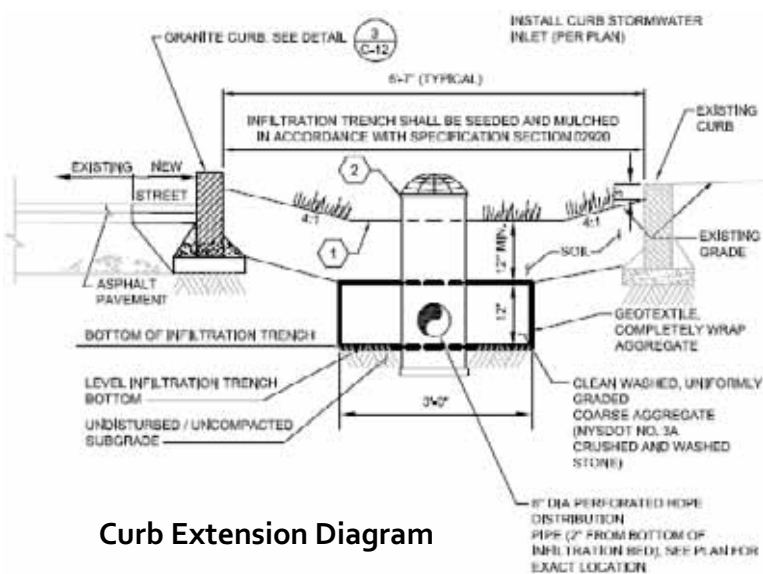
Otisco Street Green Corridor

Project:	Otisco Street Green Corridor
Project Owner:	City of Syracuse
Project Location:	Otisco St. from S. Geddes to Seneca St.
Sewershed:	Clinton/Harbor Brook
GI Technology:	Curb Extensions, Rain Gardens
Capture Area:	76,981 sq. ft.
Run-off Reduction:	2,240,845 gal/yr
Year Completed:	2011
Construction Cost:	\$1,413,732
Prime Contractor:	Derek Tarolli, Inc.

Project Description: Phase 1 of the Otisco Street Green Corridor is the first residential “green street” project to be constructed as part of the Save the Rain program. The project has many aspects, but the main aspect is that existing curb lines along Otisco Street at the intersections of S. Geddes, Ontario, and Seneca Streets will be extended approximately 6 feet into the road. The new curb line that will be set will include curb stormwater inlets that allow stormwater to runoff into new bioretention areas between the new curb and existing curb. This green practice allows for substantial stormwater capture. Phase 1 of the Otisco Street Green Corridor Project allows for a runoff reduction of almost 2.25 million gallons per year.

Not only do curb extensions provide substantial stormwater capture, but they also act as “traffic calming devices” in that they promote safer travel.

The new rain gardens that will be constructed within the curb extensions will not only capture stormwater, but they will also provide a small amount of treatment to stormwater runoff. In other residential green street projects throughout the country, these rain gardens have become community gardens in that residents tend to rain gardens in front of their homes and provide maintenance as needed.



Curb Extension Diagram

Version 12/23/2011

Green Infrastructure Project Status Report

Project C-74a: Otisco Street Green Corridor – Phase 1

DATE: January 2012

Contractor: D.E. Tarolli, Inc.

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Bioswale from Geddes St. to Belmont St.** The drop-off in certain areas of the bioswale between the sidewalk and the curb from Geddes Street to Belmont Street was found to be significantly steeper than anticipated. As a result, design changes are being considered that will modify the steep sections of the bioswale to eliminate potential safety conditions.

Further Action Needed: Because the Contractor was only able to install sidewalk and perform excavation in the fall of 2011 prior to winter weather conditions, the design modification will be developed during the winter of 2012 and implemented when construction resumes in the spring of 2012. Future residential green street designs will evaluate sidewalk elevations and the proximity of swales to avoid potential safety related issues.

Item #2: Trees and Plantings

- 2A. Trees and Plantings Progress.** No trees or plantings occurred in 2011 due to the fact that doing so would be out of the specified planting season, and thus void any warranties.

Further Action Needed: All plantings will occur in the spring of 2012 when all remaining work is completed on Otisco Street.

Item #3: Sidewalk Width

- 3A. Eight Foot Wide Sidewalk.** Per the Near West Side Initiative's (NWSI) master plan, eight (8) foot wide sidewalks were installed along the south side of Otisco Street in the fall of 2011. After installation, City DPW approached CH2M HILL with a concern that the residents would have to maintain, and eventually replace, the 8 foot wide sidewalk, while all other residents would have to do so for the City standard 5 foot wide sidewalks. After discussing with the NWSI, who performed most of the public outreach for this project, it was jointly decided that the residents would only have to maintain and eventually replace 5 feet of sidewalk.

Further Action Needed: For all future sidewalk installations that are greater than 8 feet wide, specific attention will be brought to the City DPW to address the width of the sidewalk prior to construction taking place.

Item #4: Traffic Loop Locations

- 4A. Geddes Street Traffic Loop.** During construction, it was discovered that a newly installed subsurface traffic signal loop had been installed in the asphalt at the intersection of Otisco Street and Geddes Street.

It was determined that the planned curb extension on the north side of Otisco Street at this location would be deleted from the Contract because replacement of the traffic loop was not part of the contracted green infrastructure (GI) work and would be at a significant cost to the County. As a result of this deletion, the amount of stormwater capture and associated CSO reduction for the project decreased by a respectively minimal amount. The deletion of this work from the Contract will result in a credit to the County. As of the date of this report, the amount has not yet been finalized.

Item #5: Site Restoration and Access

- 5A. Driveway Restoration and Access.** The majority of site excavation in contact with driveways was completed in the fall of 2011 prior to the winter shutdown. The driveways for each of the residential homes were temporarily restored with gravel sub-base and asphalt during the winter months.

Further Action Needed: When the contractor re-mobilizes in the spring of 2012, the temporary entrance ways will be removed and replaced with the final concrete driveways and aprons.

Item #6: Water Services

- 6A. Lead Water Services.** During the initial design phase, the City identified lead water services were identified for residential homes on Otisco Street in the Phase 1 work area. It was determined that if a service was disturbed (the intent is to avoid doing so) during the bioswale excavation, it would be replaced using an allowance provision in the plans and specifications. Further, the curb boxes within the bioswales are intended to be mounded so that they are not exposed as the result of the excavation.

Further Action Needed: For this and future residential green street projects, every effort will be made to avoid disturbing the water services, and thus avoid replacement.

Item #7: Public Outreach

- 7A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

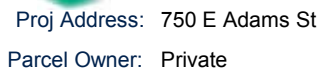
Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

- 7B. NWSI.** The NWSI performed a great deal of public outreach with the Otisco Street Green Corridor project. The project was presented at their monthly neighborhood meeting on two occasions and was also presented to their monthly board meeting on one occasion. During all meetings, feedback was received from residents and community members and design changes were implemented accordingly. Also, a flyer was distributed in English and Spanish to all of the residents living directly on Otisco Street in the area of the Phase 1 work, informing them of the coming project and any disruptions that they may experience.

Further Action Needed: The NWSI will continue to be used as a valuable public outreach forum for all projects on the Near Westside. Specifically, the Phase 2 work on Otisco Street will receive the same attention as the Phase 1 work in 2012.

Project Metrics Summary

Bid Price	\$1,413,732
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$1,413,732
Total CSO Reduction	1,818,000 gallons
Cost per CSO Reduction	\$0.78 per gallon

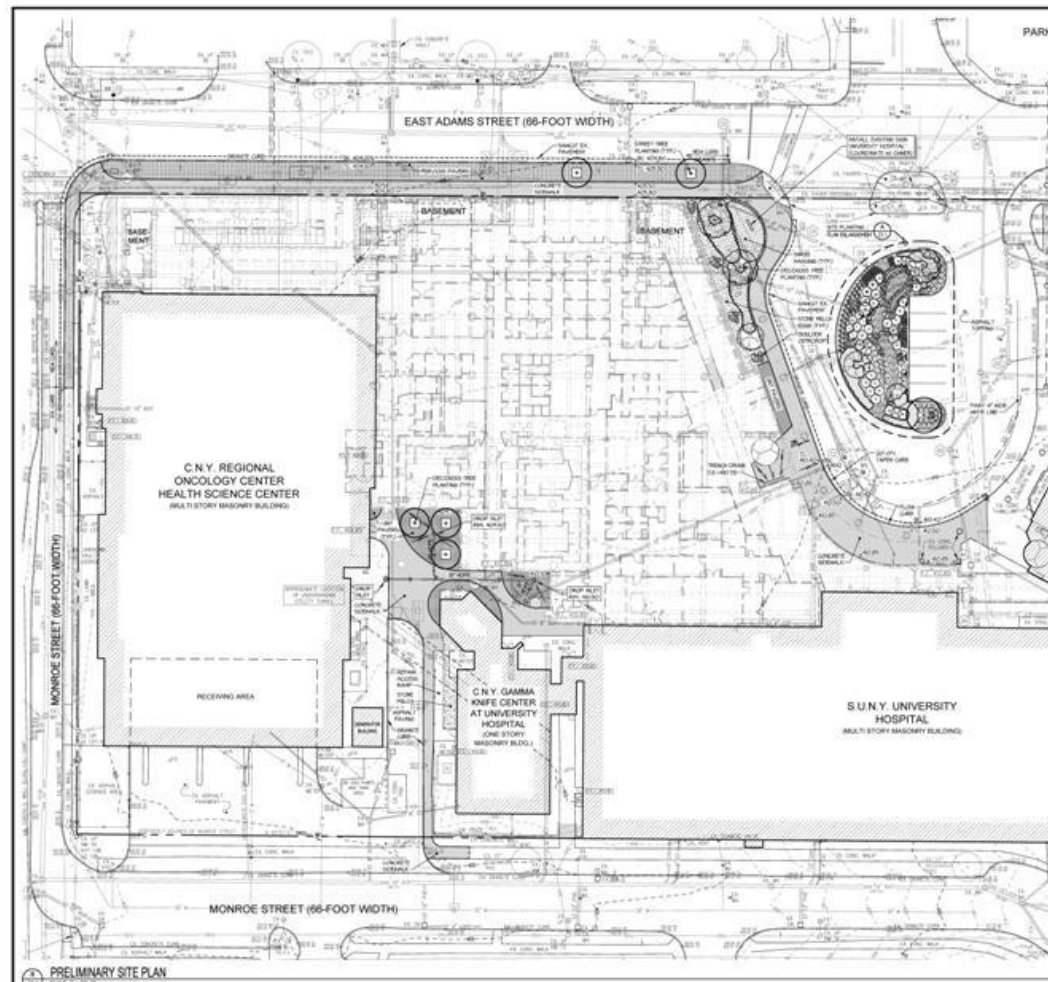


Project ID/Name: C-75a SUNY Upstate Cancer Center Green Roof

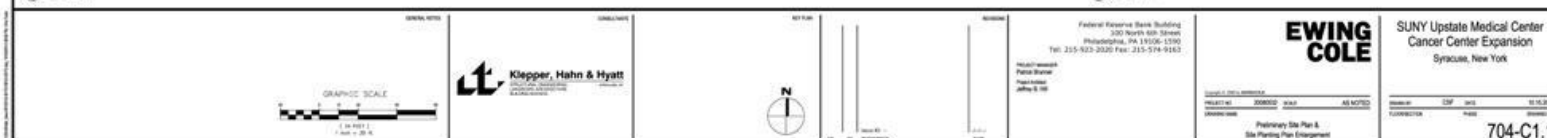
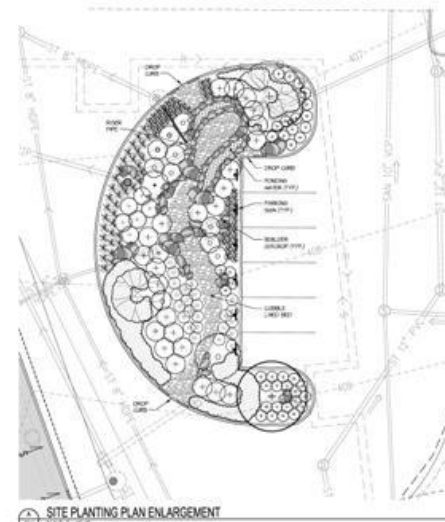
Proj Address: 750 E Adams St

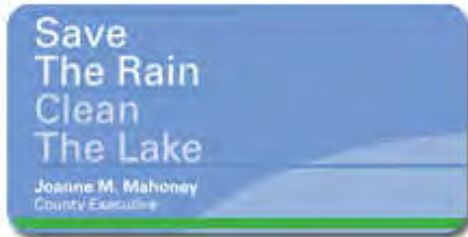
Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	12,000	12,000	211,000
Total	12,000	12,000	211,000
Annual CSO Reduction (gal)			149,810



PLANT SCHEDULE							
SYMBOL	SIZE	COMMON NAME	SCIENTIFIC NAME	LAUREL	HEIGHT	LOCATION	REMARKS
	10"	Star Birch	<i>Betula nigra</i>		12'-14'	SWS	CLUMP PLANT (LARGE)
	10"	White Fringee	<i>Chionodoxa virginica</i>		8'-10'	SWS	FILL (END)
	10"	Blackgum			8'	SWS	FILL (END)
	10"	Star Fringe Holly	<i>Ilex gracilis</i> 'Nemerosa'		10'-12'	SWS	FILL (END)
SHRUBS							
	10"	Beautyray	<i>Myiophyllum aureum</i>		2'-3' (40")	SWS	
	10"	Large Leaf Dogwood	<i>Cornus alba</i> 'Nipalis'		3'-4'	SWS	
	10"	Large Fringee Holly	<i>Chionodoxa nigra</i>		10'-12'	SWS	
	10"	King of Japan	<i>Amelanchier alnifolia</i>		24'-30'	SWS	
	10"	Japanese Flowering Quince	<i>Elaeagnus japonica</i>		24'-30'	SWS	
	10"	Fraxinus	<i>Fraxinus americana</i>		24'-30'	SWS	
SPERMATOPHYTES & GYMNOSES							
	10"	Japanese Flowering Quince			24'-30'	SWS	
	10"	Japanese Flowering Quince			24'-30'	SWS	Early flowering (winter) but with some purple
	10"	Japanese Flowering Quince			24'-30'	SWS	Medium flowering (late spring) with yellow
	10"	Japanese Flowering Quince			24'-30'	SWS	Medium flowering (late spring) with purple
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	10"	Japanese Flowering Quince			24'-30'	SWS	





FACT SHEET

SUNY Upstate Cancer Center Green Roof

Project Description:

As part of SUNY Upstate Cancer Center's expansion, a green roof is being installed on a newly built campus building. The new green roof will cover approximately 12,000 sf and prevent 211,000 gallons of stormwater from entering into the combined sewer system annually.

Construction of the campus building where the green roof will be located began in Spring 2011. The green roof is part of a larger "green initiative" SUNY Upstate is undertaking. Several other green infrastructure elements are being incorporated into other SUNY Upstate projects within Onondaga County. These projects range from green roofs, to rain gardens to tree plantings.

Project:	SUNY Upstate Cancer Center Green Roof
Project Owner:	SUNY Upstate
GI Technology:	Green Roof
Project Location:	750 E. Adams St
Sewershed:	Clinton
Capture Area:	12,000 square feet
Run-off Reduction:	211,000 gallons/yr
Year Started:	2011
Construction Cost:	TBD

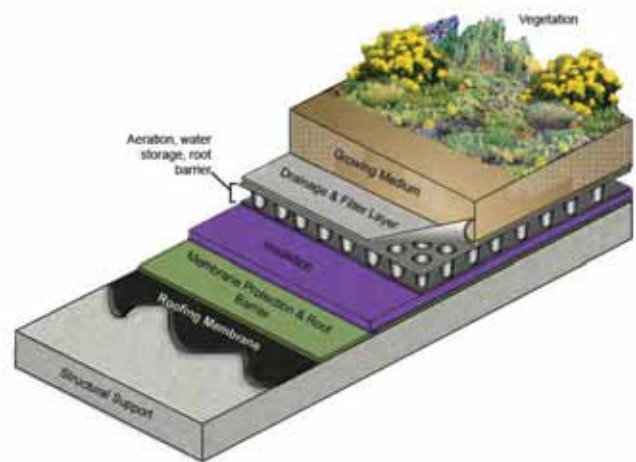


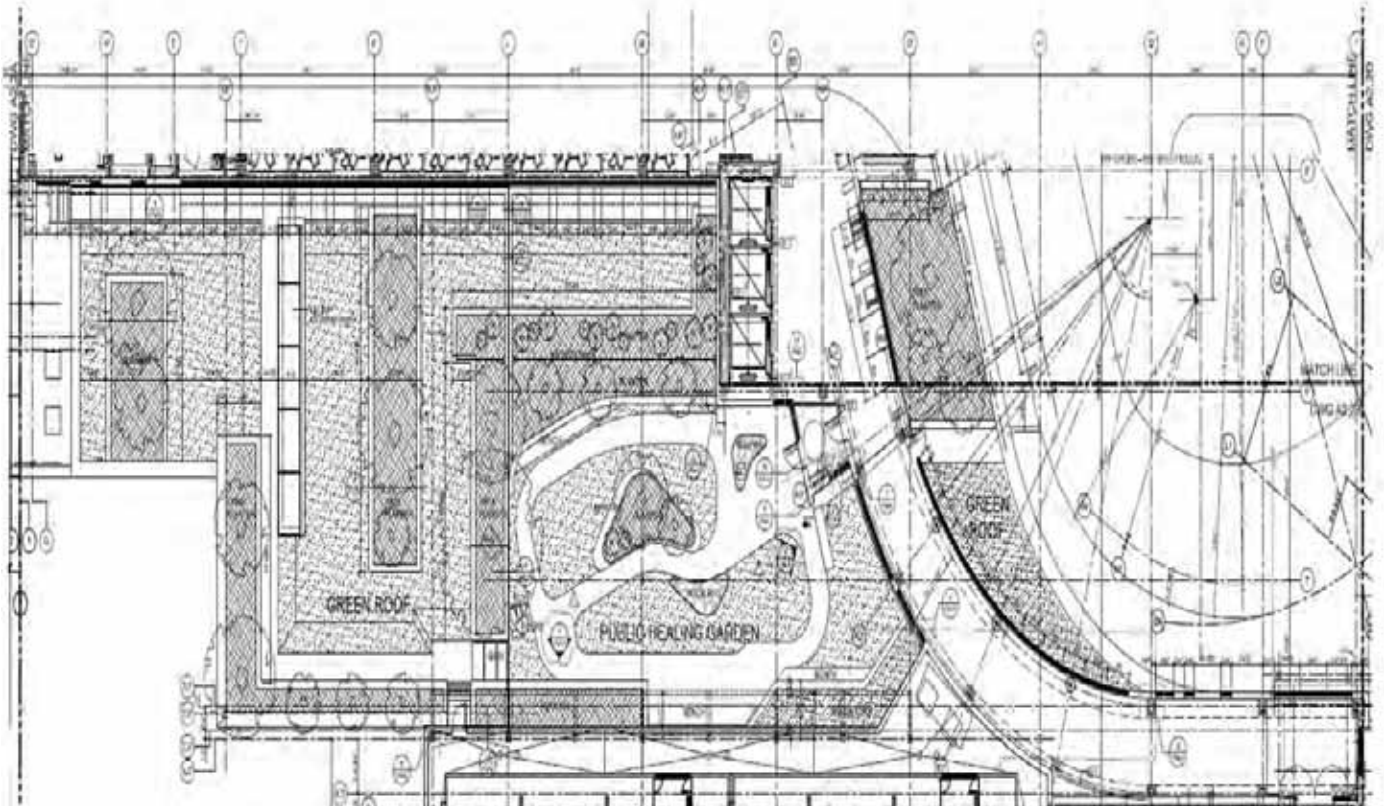
Diagram of Green Roof Implementation



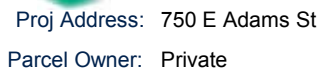
Example of Green Roof Implementation



Rendering of New SUNY Upstate Cancer Center Expansion Building (Courtesy: www.upstate.edu)



Engineering Design Plan for the Green Roof at the SUNY Upstate Cancer Center
(Courtesy of Ewing Cole)

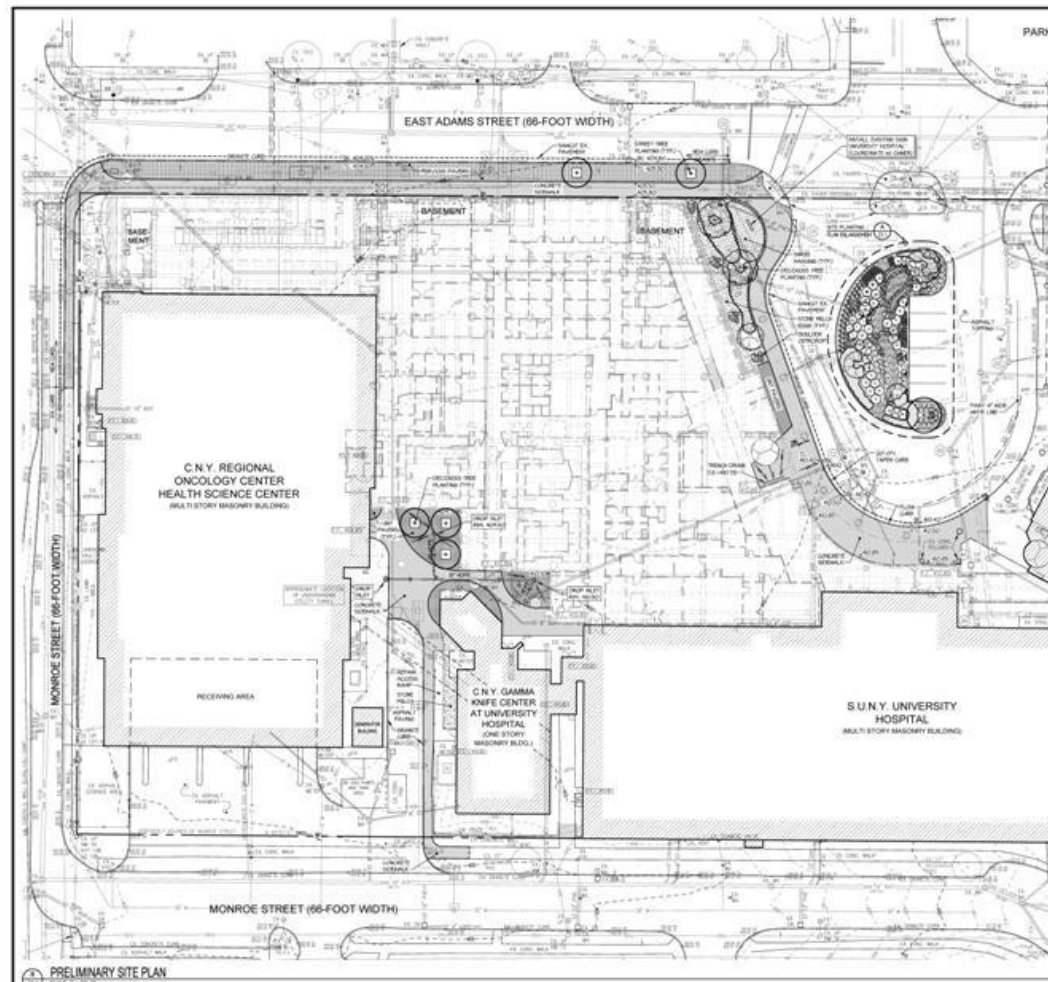


Project ID/Name: C-75b SUNY Upstate Cancer Center Rain Garden

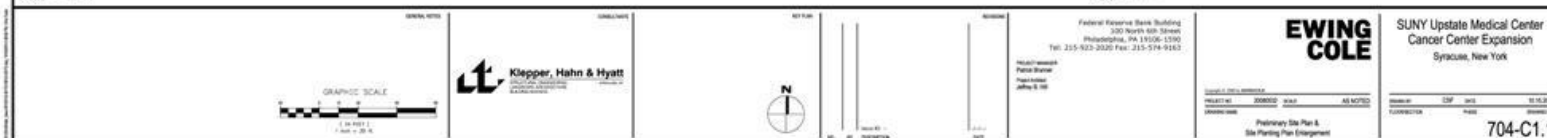
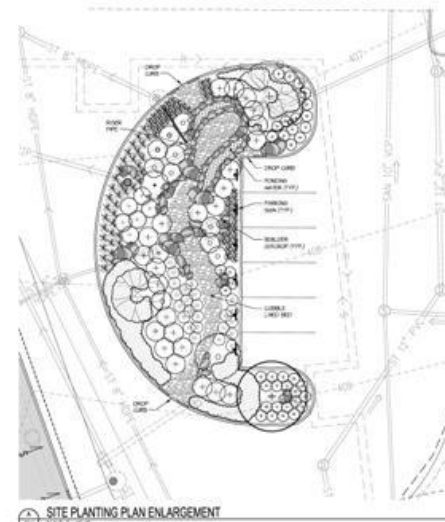
Proj Address: 750 E Adams St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	2,000	2,000	33,000
Total	2,000	2,000	33,000
Annual CSO Reduction (gal)			23,430



PLANT SCHEDULE							
SYMBOL	SIZE	COMMON NAME	SCIENTIFIC NAME	LAUREL	HEIGHT	LOCATION	REMARKS
	10"	Rose Shrub	Spinosage		12'-4"	SW	CLUMP PLANT (SEE LAYOUT)
	10"	Albizia Prunigera	Albizia virginica		8'-6"	SW	Full 45-90
	10"	Shagbark			8'	SW	Full 45-90
	10"	Red Flowering Hibiscus	Salvia splendens 'Sensational'		5'-11"	SW	Full 45-90
SHRUBS							
	10"	Beautyrain	Myrsine laevis		2'-2" (40")		1.0%
	10"	Large Leaf Plantain	Corchorus olivaceus		3'-6"		1.0%
	10"	Large Flowering Hibiscus	Salvia splendens		5'-11"	SW	1.0%
	10"	Orange Red Japanese	Camellia japonica 'Orange Red'		2'-10" (30")		1.0%
	10"	Japanese Flower	Platanus japonica		2'-10" (30")		1.0%
	10"	Dragon Fruit	Hylocichla rostrata		2'-10" (30")		1.0%
PERENNIALS & HERBACEAS							
	10"	Herbaceous Umbrella Candy	Herbaceous Umbrella Candy		1.0%		Early blooming umbellifer with pink and white petals
	10"	Herbaceous Stages Flower	Herbaceous Stages Flower		1.0%		Herbaceous umbellifer with purple and white petals
	10"	Herbaceous Tiger Claw	Herbaceous Tiger Claw		1.0%		Herbaceous umbellifer with orange and white petals
	10"	Herbaceous Tiger Claw	Herbaceous Tiger Claw		1.0%		Herbaceous umbellifer with orange and white petals
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FACT SHEET

SUNY Upstate Cancer Center Rain Garden and Tree Plantings

Project:	SUNY Upstate Rain Garden and Tree Plantings
Project Owner:	SUNY Upstate
GI Technology:	Rain Garden, Tree Plantings
Project Location:	750 E. Adams St
Sewershed:	Clinton
Capture Area:	4,000 sf
Run-off Reduction:	65,000 gal/yr
Year Started:	2011
Construction Cost:	TBD

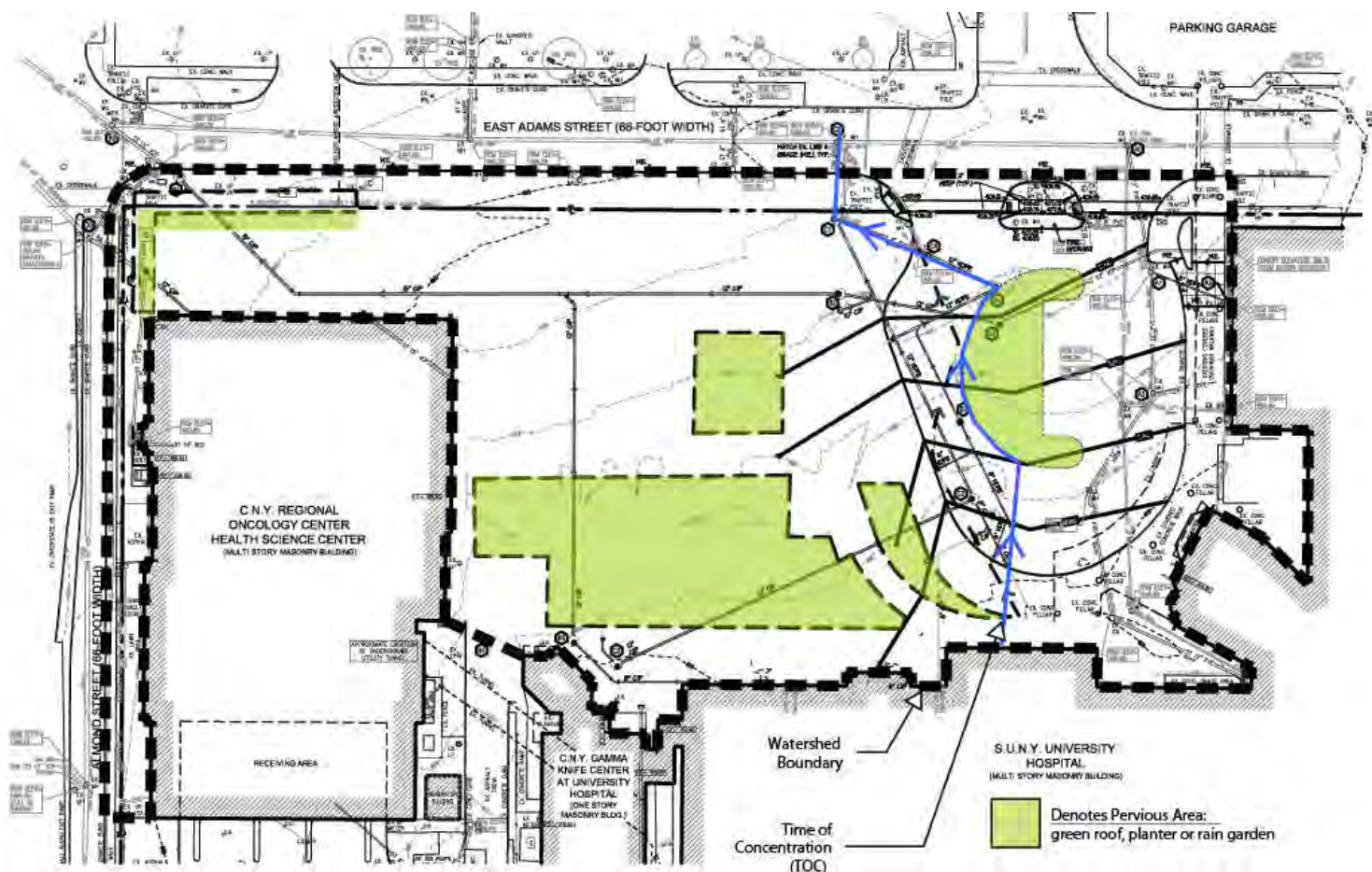
Project Description:

As part of SUNY Upstate Cancer Center's expansion a new pedestrian and automobile plaza will be constructed surrounding the new Cancer Center building. The intent of the new plaza is to promote safe travel not only by pedestrians, but also by vehicles. Green infrastructure is being incorporated into this plaza in the form of a rain garden and tree plantings. Combined, the rain garden and tree plantings capture 4,000 square feet of impervious area, preventing 65,000 gallons of stormwater from entering the combined sewer system annually.

Construction of the campus building and pedestrian/automobile plaza began in Spring 2011. These green projects are part of a larger "green initiative" SUNY Upstate is undertaking. Several other green infrastructure elements are being incorporated into other SUNY Upstate projects within Onondaga County. These projects range from green roofs, to rain gardens to tree plantings.



Examples of Rain Gardens under Dry & Wet Conditions



**Conceptual Rendering of the SUNY Upstate Cancer Center Expansion
Incorporating Green Infrastructure** *(Courtesy of Klepper, Hahn and Hyatt)*



Project ID/Name: C-75c SUNY Upstate Cancer Center Tree Planting

Proj Address: 750 E Adams St

Parcel Owner: Private

Green Technology

Impervious
Area (SF)

Green Infrastructure
Area (SF or Gal)

Annual Capture
(gal)

Tree Trench Standard

2,000

2,000

32,000

Total

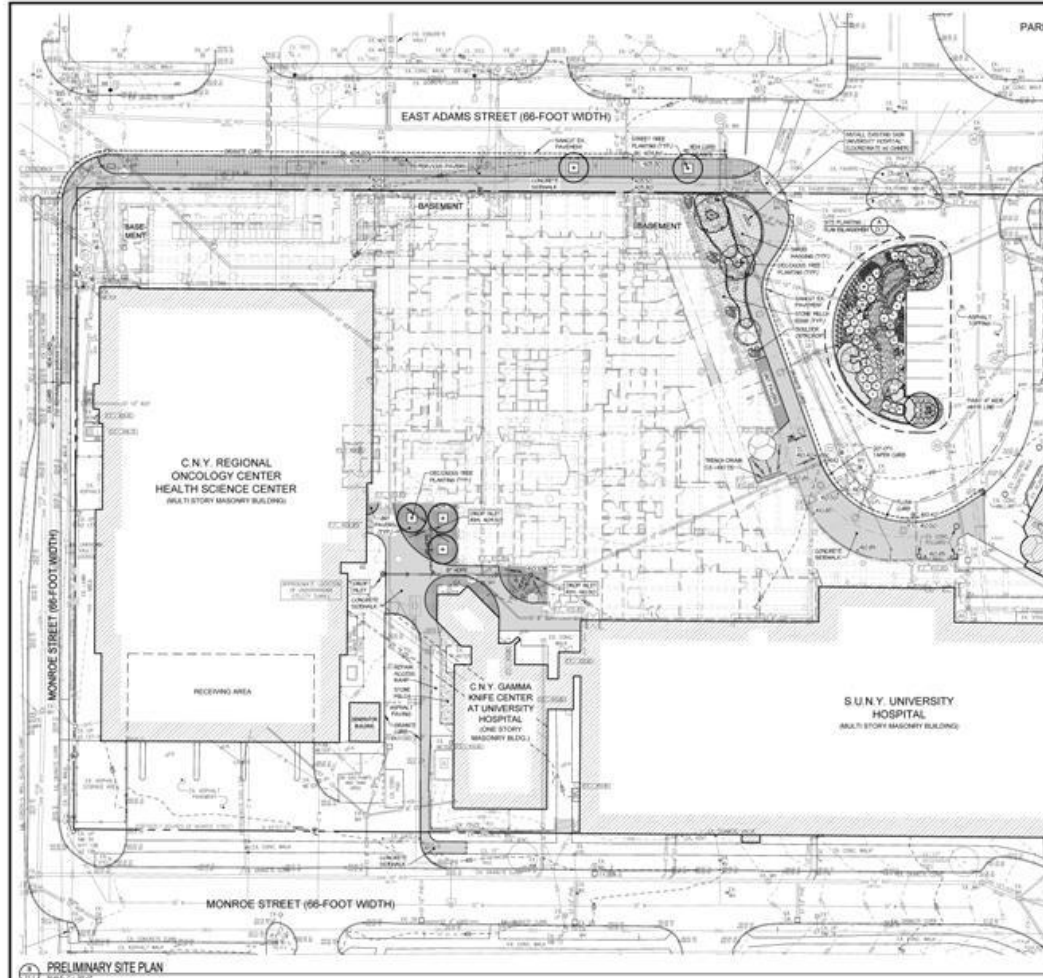
2,000

2,000

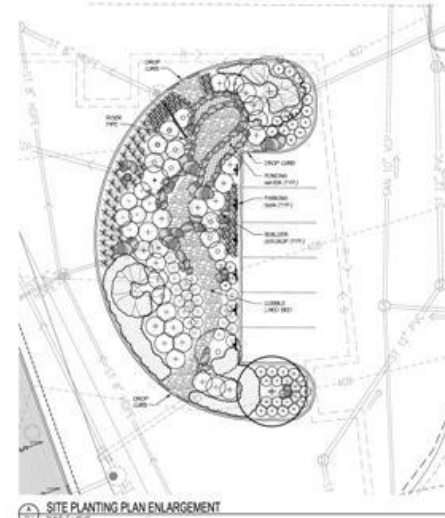
32,000

Annual CSO Reduction (gal)

22,720



PLANT SCHEDULE							
SYMBOL	SET	COMMON NAME	SCIENTIFIC NAME	CALENDAR	HEIGHT	LOCATION	REMARKS
	10	Star Birch	Stewartia	12-14'	8-10'	CLUMP PLANTING (LAVES)	
	11	White Magnolia	Chionodoxa virginica	8-10'	8-10'	CLUMP PLANTING	
	12	Blackgum	Liquidambar styraciflua	10'	8-10'	CLUMP PLANTING	
	13	Black Cherry/White	Silene gracilis/leucocarpa	10-12'	8-10'	CLUMP PLANTING	
	14	Bourbon	Amelanchier canadensis	12-14'	8-10'	CLUMP PLANTING	
	15	Red Oak	Quercus rubra	10-12'	8-10'	CLUMP PLANTING	
	16	Large Yucca	Yucca filamentosa	10-12'	8-10'	CLUMP PLANTING	
	17	Shrub Dogwood	Cornus alternifolia	10-12'	8-10'	CLUMP PLANTING	
	18	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	19	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	20	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	21	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	22	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	23	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	24	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	
	25	Japanese Palm	Chamaedorea elegans	10-12'	8-10'	CLUMP PLANTING	



Klepper, Hahn & Hyatt



Federal Reserve Bank Building
300 North 6th Street
Philadelphia, PA 19106-1200
Tel: 215-523-3020 Fax: 215-574-9183

EWING
COLE

SUNY Upstate Medical Center
Cancer Center Expansion
Syracuse, New York

Project No. 704-C1.1
Scale: 1" = 20'
Date: 10/15/2010
Author: JPH
Checker: JPH
Title: Preliminary Site Plan & Site Planting Plan Enlargement

704-C1.1



FACT SHEET

SUNY Upstate Cancer Center Rain Garden and Tree Plantings

Project:	SUNY Upstate Rain Garden and Tree Plantings
Project Owner:	SUNY Upstate
GI Technology:	Rain Garden, Tree Plantings
Project Location:	750 E. Adams St
Sewershed:	Clinton
Capture Area:	4,000 sf
Run-off Reduction:	65,000 gal/yr
Year Started:	2011
Construction Cost:	TBD

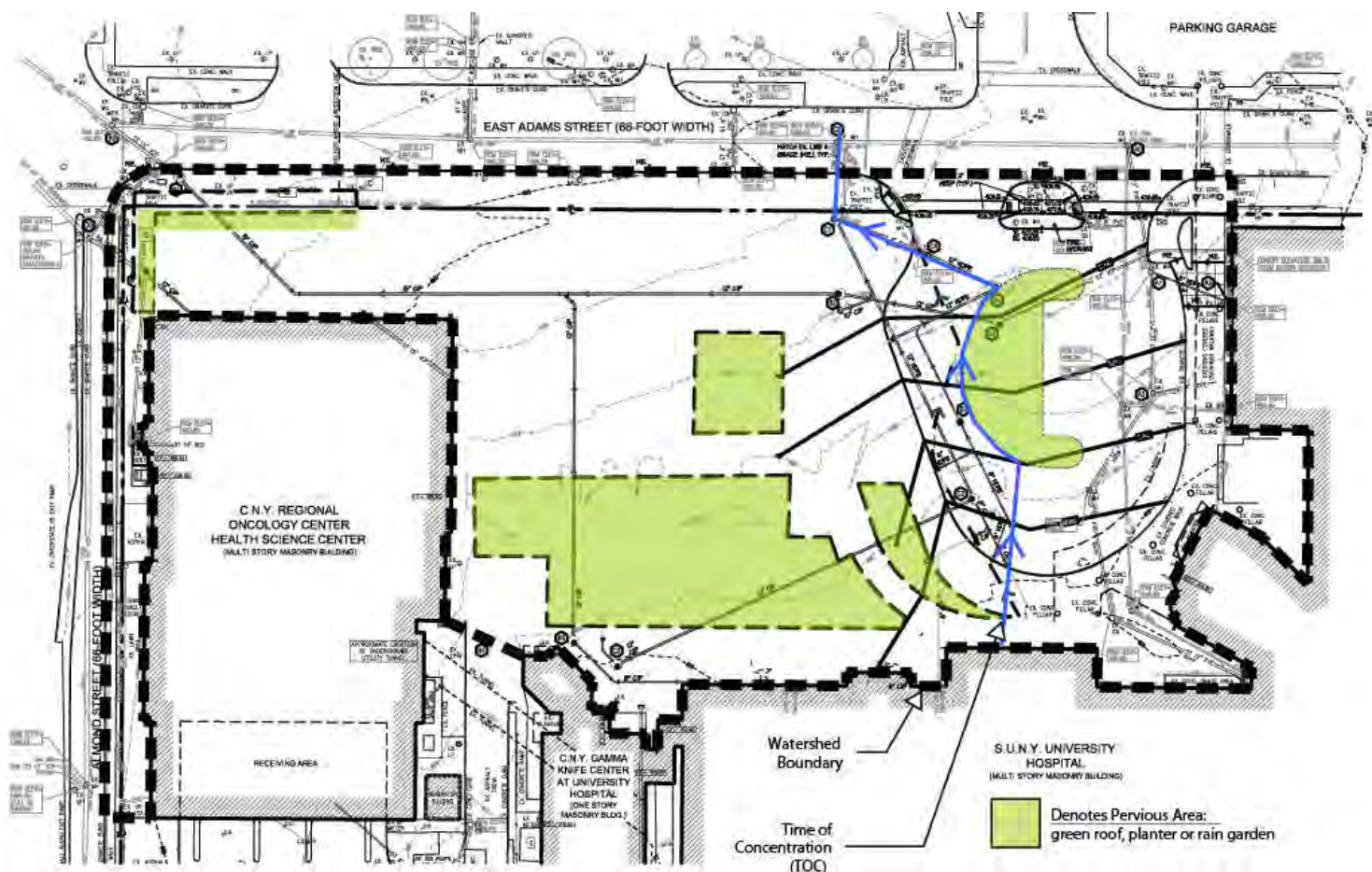
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Construction of the campus building and pedestrian/automobile plaza began in Spring 2011. These green projects are part of a larger "green initiative" SUNY Upstate is undertaking. Several other green infrastructure elements are being incorporated into other SUNY Upstate projects within Onondaga County. These projects range from green roofs, to rain gardens to tree plantings.



Examples of Rain Gardens under Dry & Wet Conditions



**Conceptual Rendering of the SUNY Upstate Cancer Center Expansion
Incorporating Green Infrastructure** *(Courtesy of Klepper, Hahn and Hyatt)*

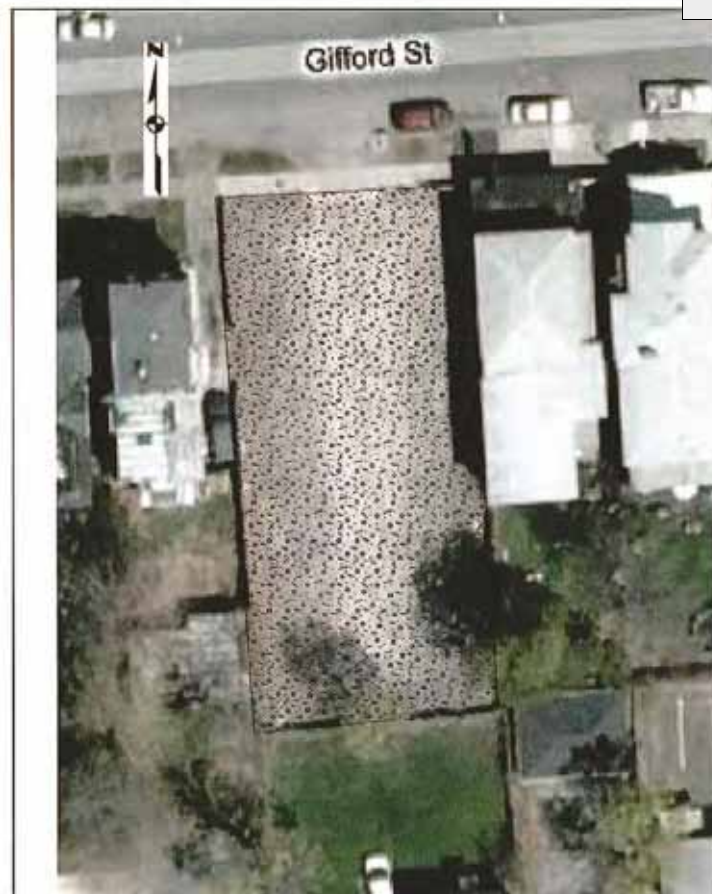


Project ID/Name: C-77 GIF#022 Alexander West Properties, LLC

Proj Address: 327 Gifford Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	9,000	1,000	153,000
Total	9,000	1,000	153,000
Annual CSO Reduction (gal)			108,630



Not to scale.



Proposed porous concrete lot

PROJECT MAP

GIF PROJECT - 327 GIFFORD ST., SYRACUSE, NY



DATE: 10/25/10

DRAWN BY: KFT

FIGURE 1



Project ID/Name: C-78 GIF#024 CNY Regional Transportation Authority

Proj Address: 624-662 South Warren Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Trench	71,000	71,000	1,243,000
Total	71,000	71,000	1,243,000
Annual CSO Reduction (gal)			882,530

11/19/2017 11:00:00 AM 11/19/2017 11:00:00 AM

Page 1 of 1



Aerial Photo

11/19/2017 11:00:00 AM 11/19/2017 11:00:00 AM

11/19/2017



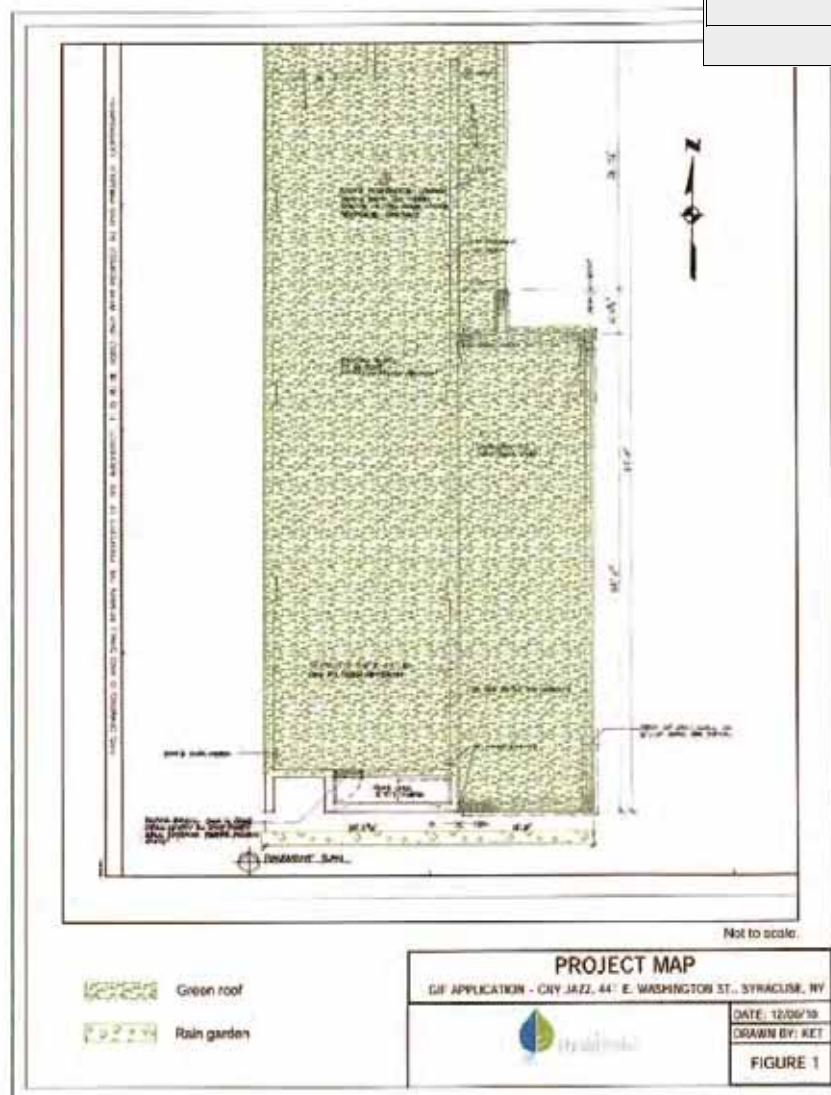
Project ID/Name: C-79

GIF#026 Central New York Jazz Arts Fndtn

Proj Address: 441 E. Washington Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	2,000	2,000	44,000
Bioretention	000	000	9,000
Total	2,000	2,000	53,000
Annual CSO Reduction (gal)			37,630



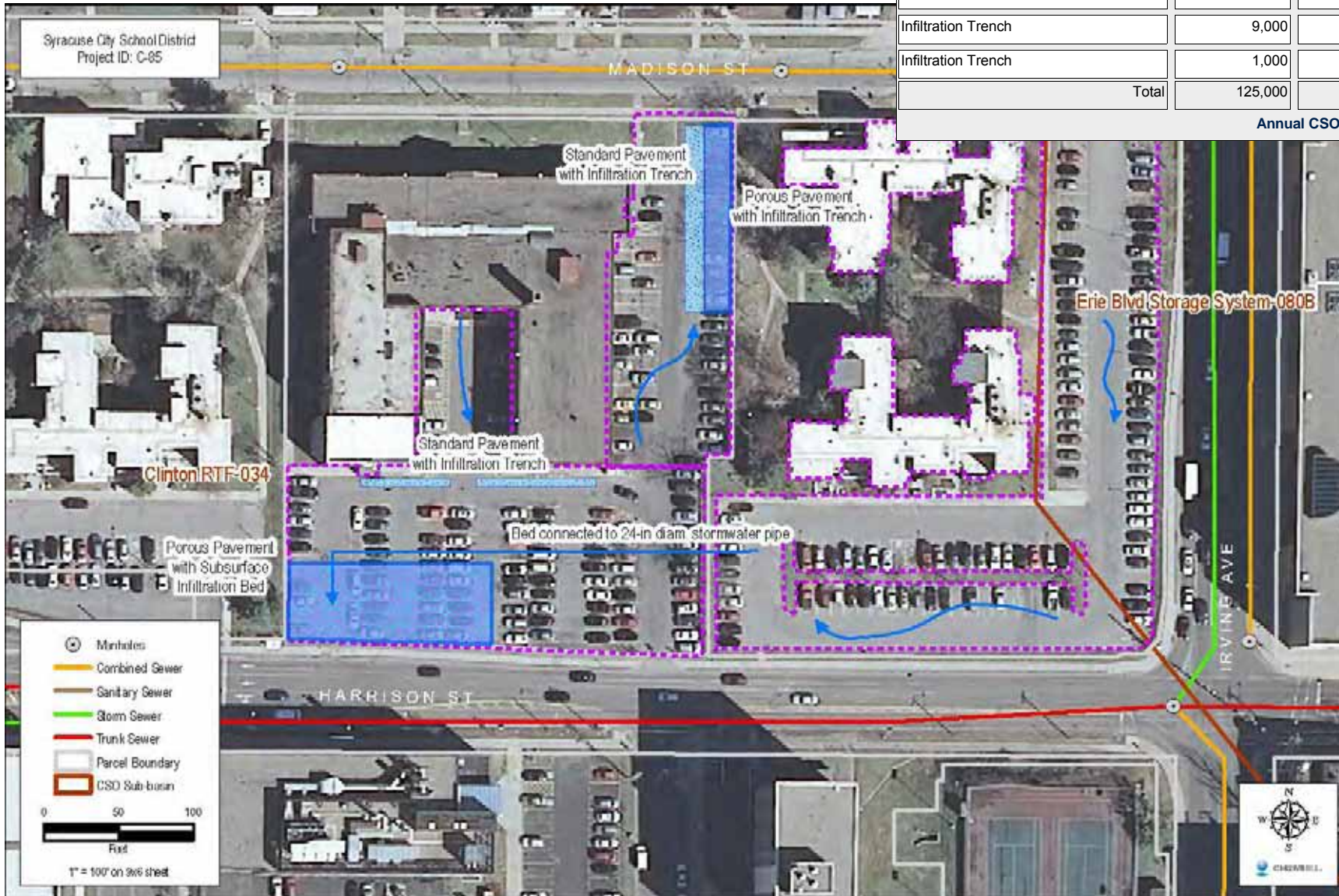


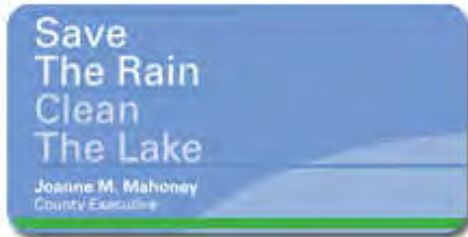
Project ID/Name: C-85 SCSD Central Offices

Proj Address: 725 Harrison Street

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	106,000	7,000	1,866,000
Porous Pavement Parking Lot	9,000	2,000	158,000
Infiltration Trench	9,000	2,000	
Infiltration Trench	1,000	1,000	12,000
Total	125,000	12,000	2,036,000
Annual CSO Reduction (gal)			1,445,560





FACT SHEET

SCSD Central Offices Parking Lot

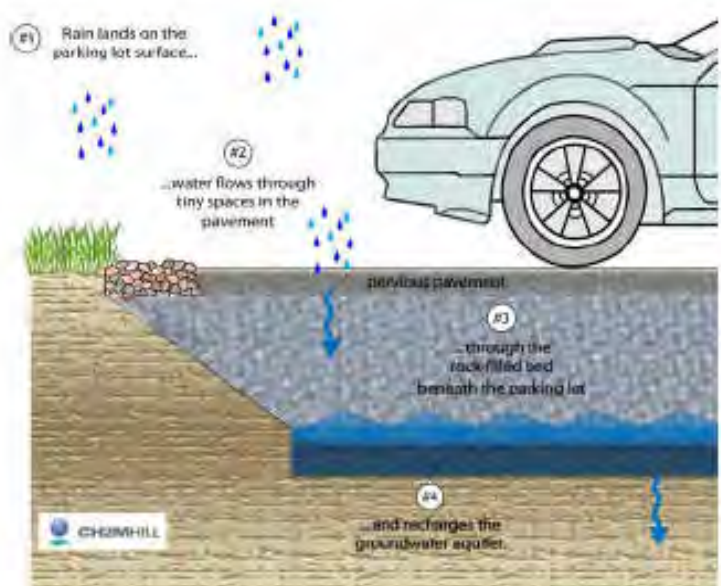
Project Description: This project involves the construction of two infiltration trenches under standard asphalt and two infiltration beds beneath porous asphalt in the parking lot of the Syracuse City School District (SCSD) Central Offices on Harrison Street. These installations of green infrastructure are expected to capture over two million gallons of stormwater each year.

A unique facet of this particular project is the design of an infiltration bed along Harrison Street that will be 12 feet deep to allow the interception of a 24" storm sewer line. This storm sewer line originates from the adjacent Hutchings Psychiatric Center, allowing for the capture of runoff from not only the Central Offices Parking Lot, but also from the roof of all of the Hutchings' buildings and Hutchings' parking lot, making this particular project one of the most cost-efficient projects thus far in the Save the Rain program.

Project:	SCSD Central Offices Parking Lot
Project Owner:	SCSD
Project Location:	725 Harrison St
Sewershed:	Clinton/Lower MIS
GI Technology:	Porous Pavement, Infiltration Beds
Capture Area:	125,000 sq. ft.
Run-off Reduction:	2,036,000 gal/yr
Year Contracted:	2011
Construction Cost:	\$506,755 (<i>Engineer's Estimate</i>)
Prime Contractor:	Orchard Earth & Pipe



Aerial View of SCSD Central Offices Parking Lot Prior to Construction



Schematic of Porous Pavement & Infiltration Bed

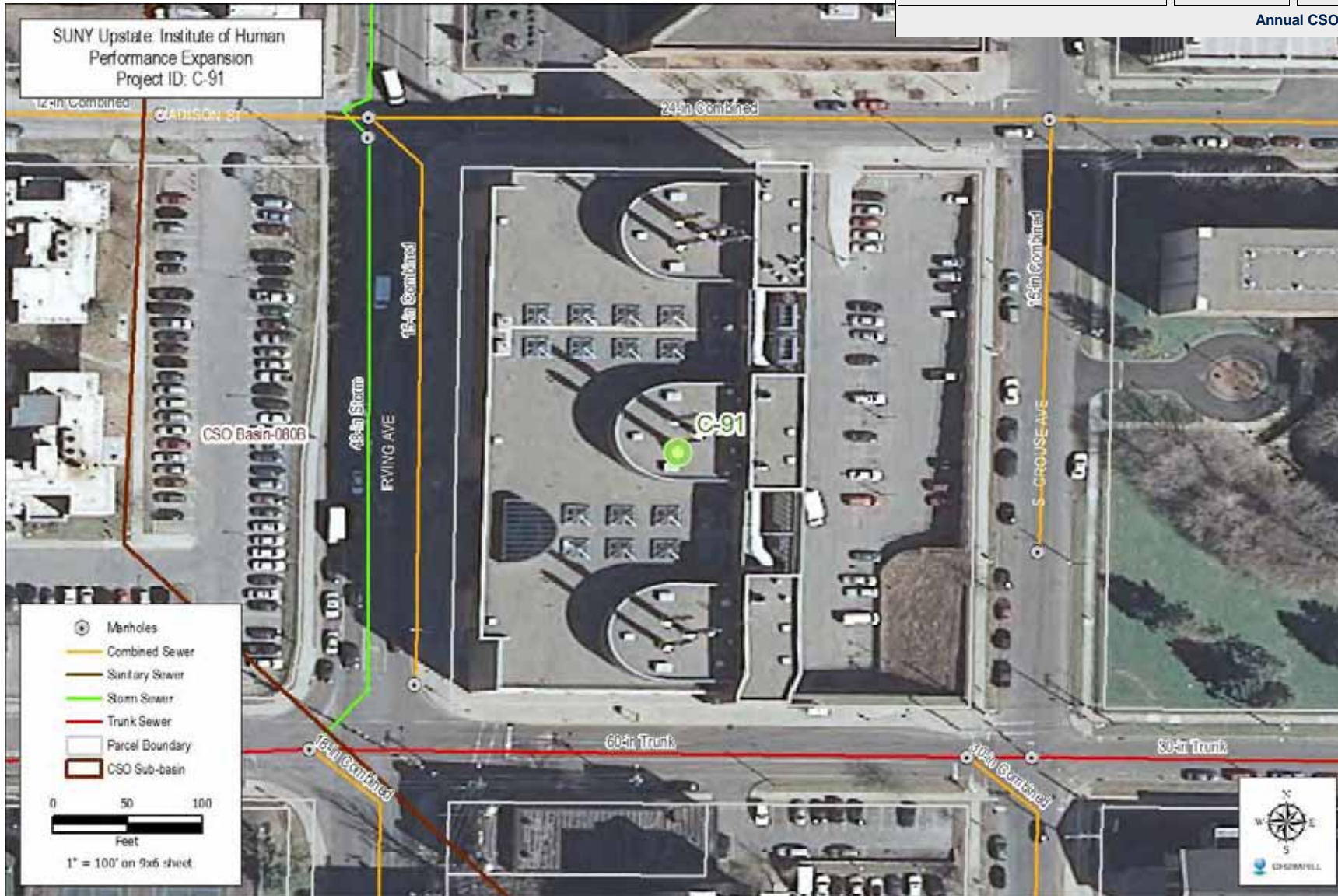


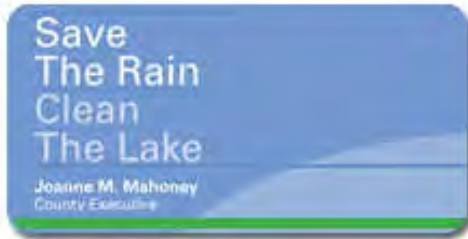
Project ID/Name: C-91 SUNY Upstate: Institute of Human Performance Expansion

Proj Address: 505 Irving Avenue

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Silva Cells Low	23,000		412,000
Total	23,000		412,000
Annual CSO Reduction (gal)			292,520





FACT SHEET

SUNY Upstate: Institute of Human Performance Expansion

Project Description: In collaboration with SUNY Upstate, this project will involve the realignment of the sidewalk along South Crouse Avenue in addition to installing a tree trench along the road in order to maximize the tree canopy in this parking area that otherwise has few existing trees.

The project will take place on the site of SUNY Upstate's Institute for Human Performance (IHP) and will be part of a planned 160,000 square foot expansion of IHP, which will showcase SUNY Upstate's strength in its interdisciplinary and interdepartmental approach to the study of disorders of the nervous system. The expanded facility is expected to open in the spring of 2013.

Project:	SUNY Upstate
GI Technology:	Tree Trench
Project Location:	505 Irving Avenue
Project Owner:	Private
Sewer shed:	Clinton/Lower MIS
Capture Area:	N/A
Run-off Reduction:	18,000 Gallons/PY
Year Completed:	2012
Construction Cost:	No funding from County
Bid Date:	Under Construction
Prime Contractor:	Unknown



Existing Conditions



Street Tree Palette



Tree Trench example

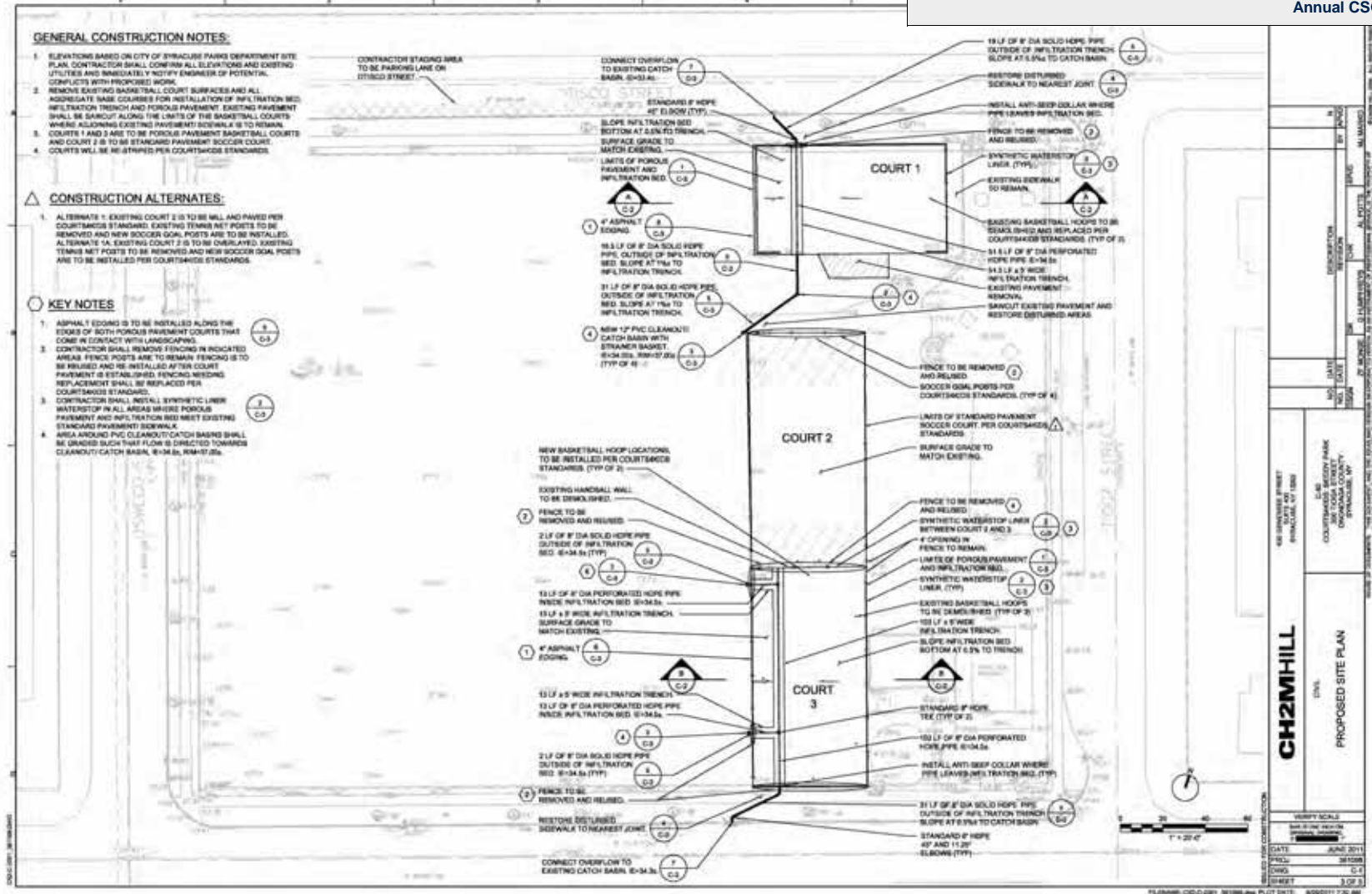


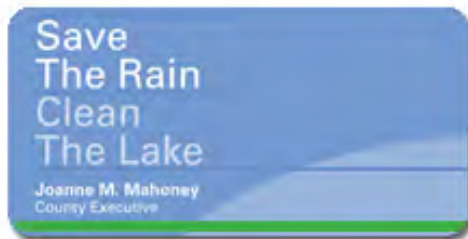
Project ID/Name: C-92 GIF#40 - Skiddy Park Basketball Courts/Boehiem Foundation

Proj Address: Tully St between Oswego and Tioga

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	10,000	5,000	182,000
Porous Pavement Parking Lot	9,000	6,000	162,000
Total	19,000	11,000	344,000
Annual CSO Reduction (gal)			244,240





FACT SHEET

Courts4Kids: Skiddy Park

Project Description: Completed in July 2011, this project renovated the basketball courts at Skiddy Park and involved the installation of porous pavement and an associated subsurface infiltration bed, converting the impervious surface to a permeable area. The area of the courts is approximately 19,000 square feet, and will reduce stormwater runoff by about 344,400 gallons each year.

This green infrastructure project was part of a larger Skiddy Park renovation which has been a collaborative effort between The Jim and Juli Boeheim Foundation, NY Knicks star and Syracuse University alumnus Carmelo Anthony, and the City of Syracuse Department of Parks, Recreation, and Youth Programs, and the Near West

Project:	Skiddy Park
Project Owner:	City Of Syracuse Parks Department
GI Technology:	Porous Pavement
Project Location:	300 Tioga St.
Project Owner:	Onondaga County
Sewershed:	Clinton
Capture Area:	19,000 square ft
Run-off Reduction:	344,400 gallons/yr
Year Completed:	2011
GIF Funding:	\$164,674



Skiddy Park's new porous pavement basketball courts after the renovation



Skiddy Park basketball courts before the renovation



Skiddy Park's new porous pavement basketball courts after the renovation

Version 7/29/2011

Green Infrastructure Project Completion Report

Project C-92: GIF#40: Courts4Kids Skiddy Park

DATE: January 2012

Contractor: Barrett Paving Materials

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Porous Asphalt Gradation and Binder.** Because the surface of the porous asphalt was intended to be used for basketball playing only, the gradation of the porous asphalt was revised to produce a smoother playing surface. Furthermore, typically porous asphalt parking lots require a binder of grade PG-72 or higher. Because the basketball courts will likely get no vehicular traffic, the binder was decreased to PG-64 for this project.

Further Action Needed: The performance of the porous asphalt will be monitored in the future to determine if the mix used for this project should be revised for future basketball court projects.

Item #2: Basketball Hoops/Soccer Goals

- 2A. Basketball Hoop Pole Mount.** Shortly after construction was completed, it was discovered that an anchor bolt was not installed between the basketball hoop pole and the surrounding concrete. As a result, the hoop was able to rotate freely when twisted by grabbing the rim and swinging. The contractor was called back out to the site to install an anchor and correct the problem.

Further Action Needed: For future porous basketball court projects, an anchor will be specified to properly support the hoop pole mount. The Contractor completed this modification at no additional cost.

- 2B. Basketball Hoop Pole Concrete Base.** During paving operations, sonna-tube was used to form the area in which the pole supporting the rim was to be placed, while placing asphalt, the sonna-tube caved in due to pressure from the rolling of the pavement. As a result, a depression occurred around the pole base due to shifting subbase material.

Further Action Needed: For future porous basketball court projects, PVC sleeves will be used to form the location where the hoops will be installed. PVC sleeves are much more durable and should be able to withstand the pressure of paving operations. The Contractor completed this modification at no additional cost.

- 2C. Basketball Hoop Types.** The City Parks Dept. has requested that the hoops in future porous basketball court projects provide adequate support in the event of dunking, and be adjustable from the backboard to allow for height adjustments without reinstalling the whole hoop.

Further Action Needed: For future porous basketball court projects with basketball hoops, City Parks Dept. input will be received earlier so that the proper basketball hoops are installed.

- 2D. Soccer Goals.** The soccer goals installed by the Courts4Kids foundation were not the goals intended by the City Parks Dept. The City Parks Dept. has requested that the soccer goals be much smaller, sized for the playing court, and that they be removable in the winter.

Further Action Needed: For future porous soccer court projects with soccer goals, City Parks Dept. input will be received earlier so that the proper soccer goals are installed.

Item #3: Public Outreach

- 3A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

- 3B. Partnership with Courts4Kids.** The Courts4Kids foundation provided funding for all non-green aspects of the porous basketball courts project. They also arranged a press event for the opening of the new courts which was attended by County Executive Joanne Mahoney, City of Syracuse Mayor Stephanie Miner and Syracuse University Men's Basketball Coach Jim Boeheim.

Further Action Needed: The Courts4Kids foundation has expressed interest in continuing the partnership in future years with the construction of more basketball courts. CH2M HILL will reach out to the foundation in future years to pay for the non-green aspects of the porous basketball courts projects.

Project Metrics Summary

GIF Award Amount	\$162,075
Change Order Total	\$0
Total Project Cost	\$162,075
Total CSO Reduction	244,000 gallons
Cost per CSO Reduction	\$0.66 per gallon



Project ID/Name: C-96 GIF#034 Pike Block

Proj Address: S Salina & W Fayette St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Cistern/Rain Barrel	29,000	32,000	550,000
Total	29,000	32,000	550,000
Annual CSO Reduction (gal)			390,500



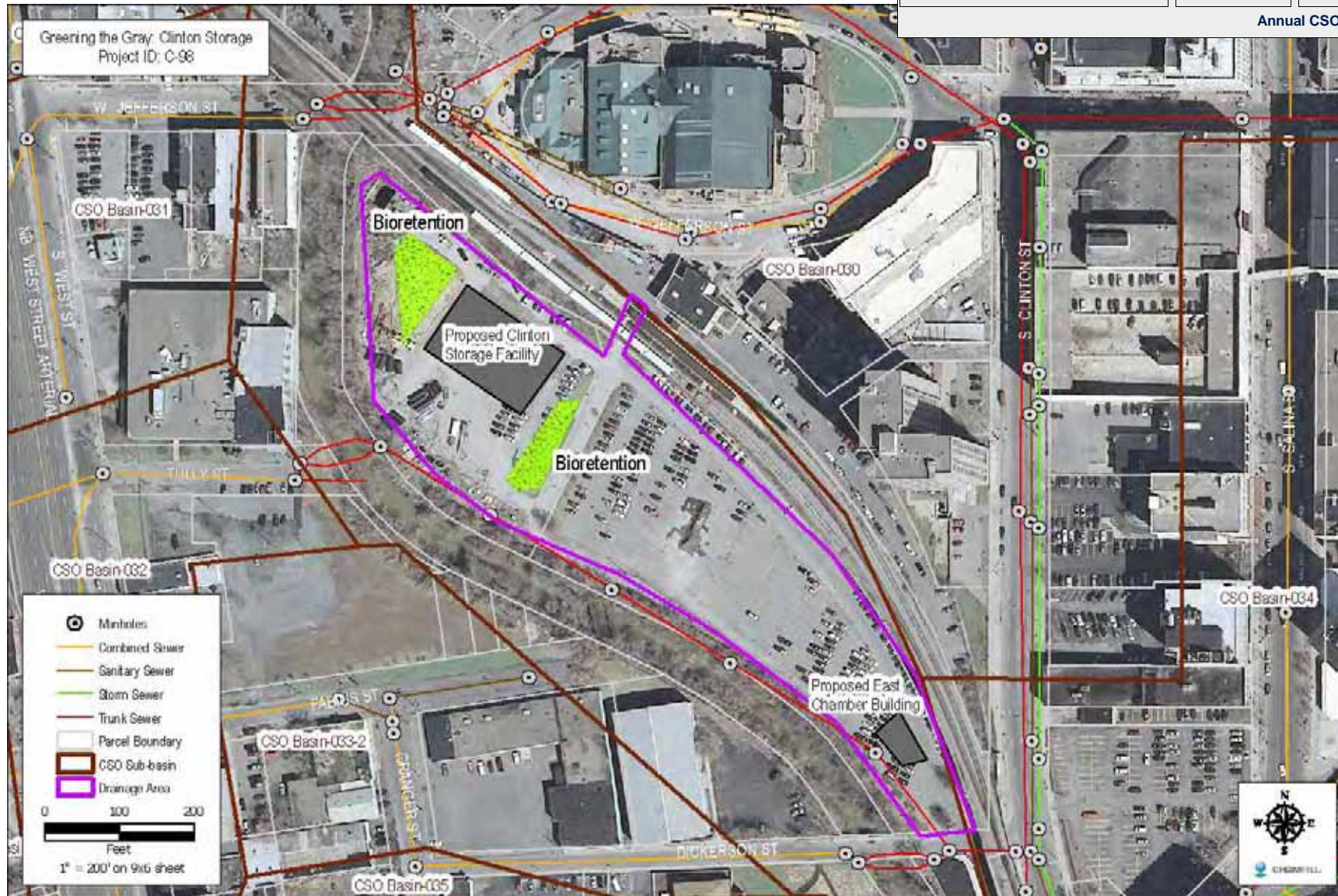


Project ID/Name: C-98a Greening the Grey at Clinton Storage Facility

Proj Address: Street North to West Jefferson (Trolley Lot)

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
GI Placeholder	217,000		3,822,000
Total	217,000		3,822,000
Annual CSO Reduction (gal)			2,713,620





Project:	Clinton CSO Storage
Project Owner:	Onondaga County
Project Location:	Trolley Lot, Syracuse
Sewershed:	Clinton/Lower MIS
Technology:	Storage Facility
Capacity:	6,000,000 gallons
CSO Capture:	114,000,000 gal/yr
# CSOs Abated:	8
Completion Date:	12/ 31/13
Contract amount:	\$70,640,000
Bid Date:	7/14/11
Prime Contractor:	Jett Industries

FACT SHEET

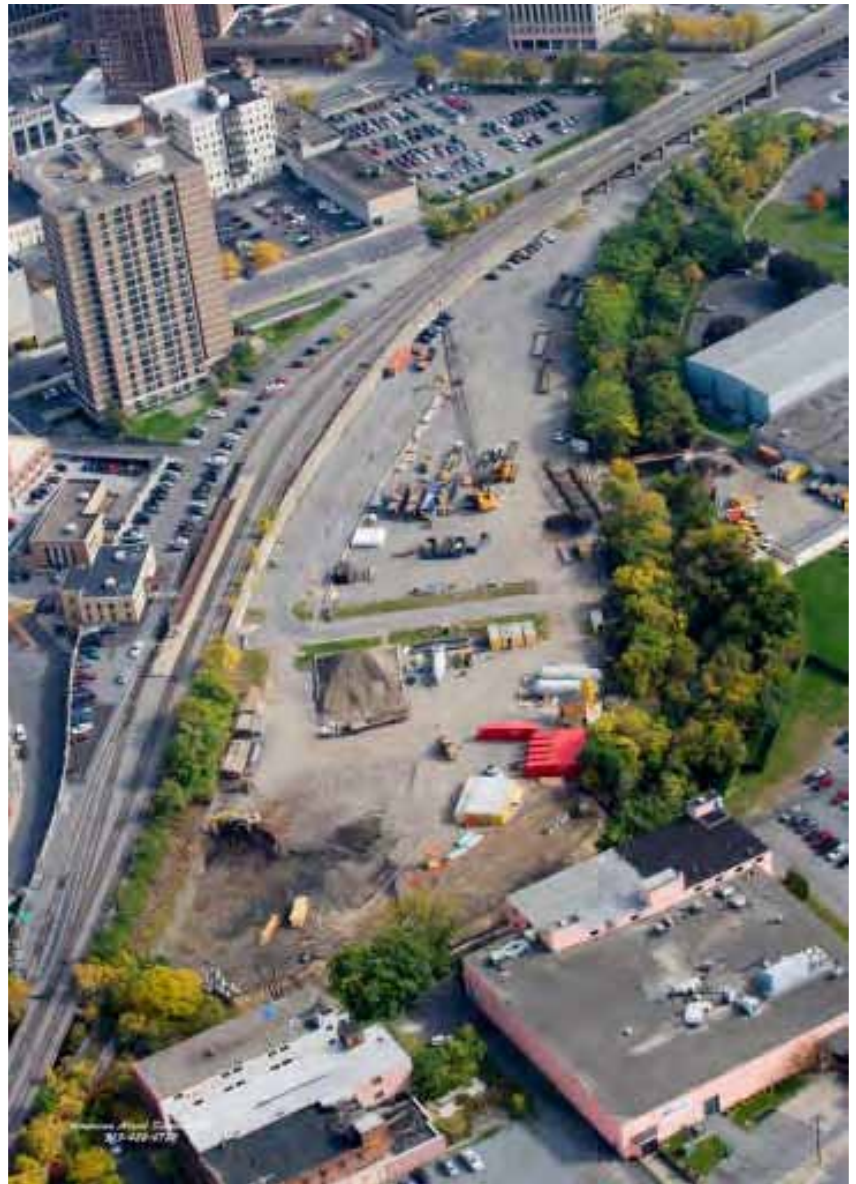
Clinton CSO Storage Facility

Project Description: The Clinton CSO Storage Facility Project is a 6 million gallon combined sewer overflow storage facility that will be constructed in the parking area between the elevated rail tracks and Onondaga Creek just south of the Armory Square area of downtown Syracuse (formerly known as the Trolley Lot). During wet weather events, the facility's three, parallel 18-foot diameter, underground storage tunnels will capture flow from 8 combined sewer overflows (CSOs) in the vicinity of the former Trolley Lot. The wastewater will be stored in the tunnels until it can be conveyed via the main interceptor sewer to the Syracuse Metropolitan Sewage Treatment Plant (Metro) for treatment. The off-site conveyance piping, which will transmit the flow to the facility, was installed under the Clinton CSO Phase 1 and 2A conveyances projects completed in 2009. There will be additional on-site conveyance piping installed under this project to connect the existing sewers to the new facility. In addition to the tunnels there will be two above ground structures located at either end (east and west) of the parking lot which provide access to the tunnels and house the pumping, grit collection and odor control facilities

Green Components: To further enhance the sustainability of the facility, the project includes green infrastructure components. The stormwater runoff from the entire site that measures approximately 275,000 square feet or 6.3 acres will be managed by green infrastructure. The stormwater from the area surrounding the main structure on the western half of the site will be collected by a series of catch basins and stormwater piping that will outfall into two bioretention basins. The bioretention basins will allow the stormwater to infiltrate into the ground rather than immediately runoff to the creek. In addition, stormwater runoff from the eastern half of the project site, to be restored as a parking area, will be directed to a subsurface collection facility and used to flush the storage tunnels to clear them of grit and debris that may have settled or been left behind after the stored combined sewage was transmitted to Metro. In addition, a green roof will be installed on the west building.

Construction Update: Construction began on September 1, 2011. The contractor has begun the site preparation including clearing and grubbing for the temporary Fabius Street Bridge, materials staging, slurry plant preparation and excavation at the northwest corner of the site.

Clinton CSO Storage Facility Project –
Construction Progress October 11, 2011



Project Location Map

Version 10/27/2011

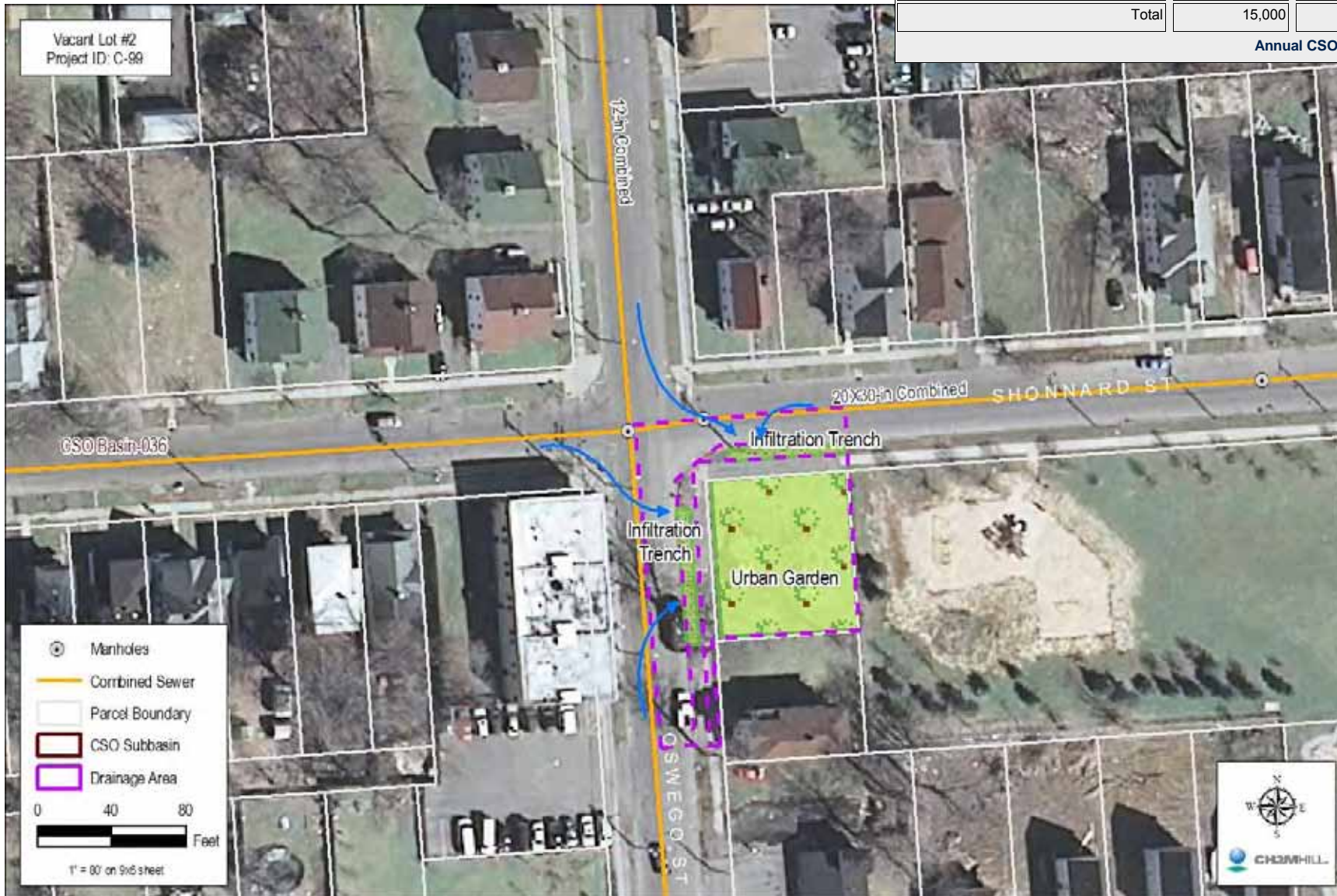


Project ID/Name: C-99 Vacant Lot Project #2

Proj Address: 701 Oswego Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Urban Garden	2,000	2,000	30,000
Infiltration Trench	13,000	1,000	229,000
Total	15,000	3,000	259,000
Annual CSO Reduction (gal)			183,890





FACT SHEET

Vacant Lot Project: 701 Oswego St.

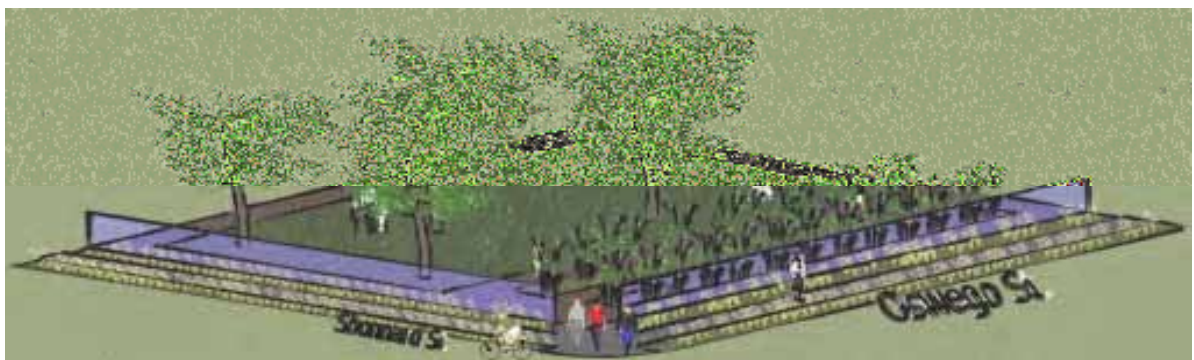
Project Description: The Vacant Lot Oswego Street Project will be the first vacant lot completed in the Save the Rain campaign. The vision of the Vacant Lot program is to convert City-owned empty lot properties into useable spaces for public benefit. This vision also provides the opportunity for stormwater management and capture at vacant lot sites. The Oswego Street project involves the installation of two infiltration trenches designed to capture stormwater from Oswego and Shonnard streets via existing stormwater infrastructure. The existing catch basins along both streets will be utilized for conveying stormwater into the infiltration trenches. Also included in this project is the construction of an urban garden which will consist of apple and peach trees as well as berry bushes.

This green infrastructure is designed to capture up to 1" of rainfall at a given time, reducing annual stormwater runoff by approximately 259,000 gallons.

Project:	Vacant Lot – Oswego St.
Project Owner:	City of Syracuse
Project Location:	701 Oswego St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Infiltration Trenches, Urban Garden
Capture Area:	15,000 sq. ft.
Run-off Reduction:	259,000 gal/yr
Year Completed:	2011
Construction Cost:	\$88,000 (<i>Engineer's Estimate</i>)
Bid Date:	10/7/11
Prime Contractor:	TBD



**Aerial View of Vacant Lot
Prior to Construction**



Rendering of vacant lot after green infrastructure installation
(*Conceptual rendering: Atlantic States Legal Foundation*)

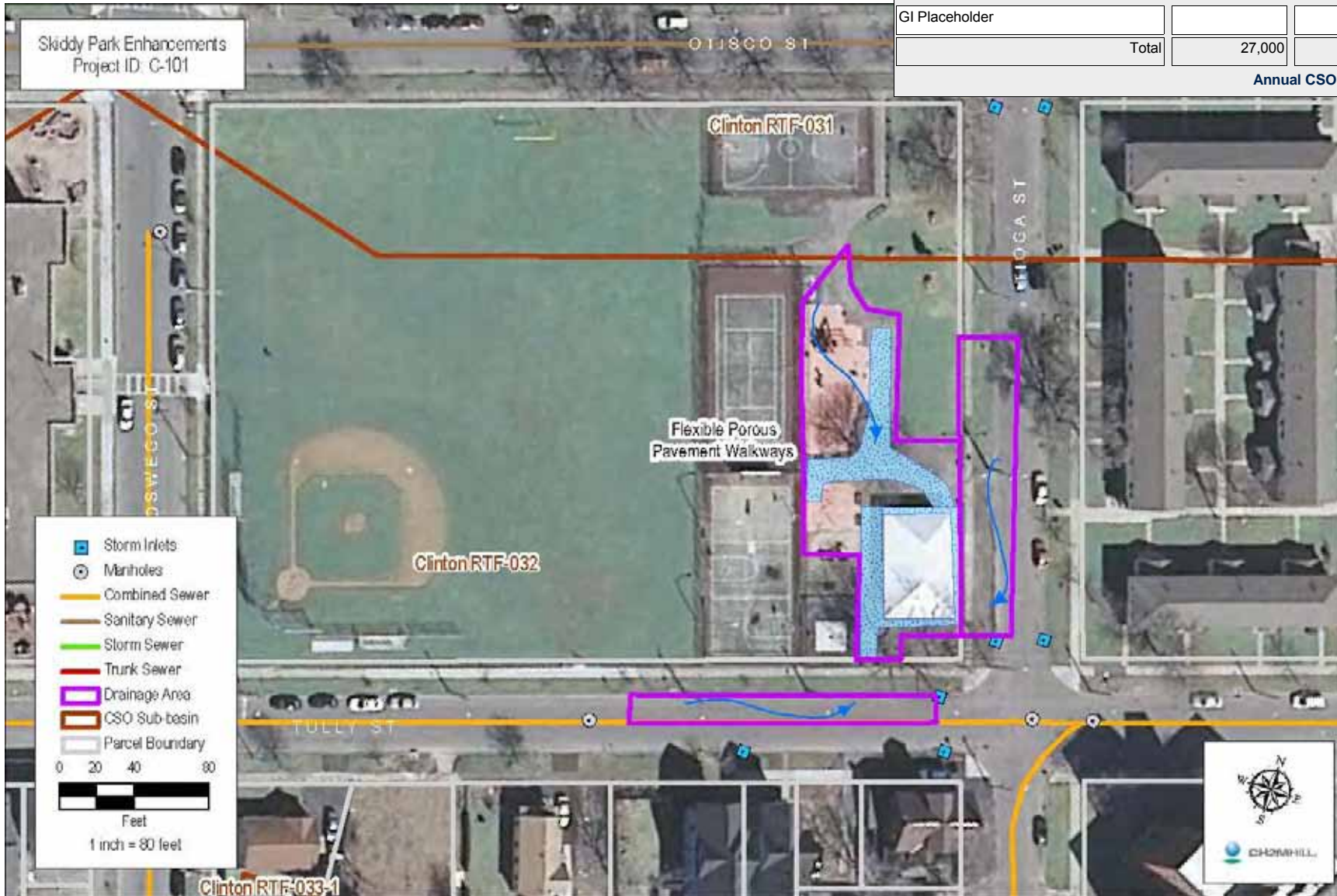


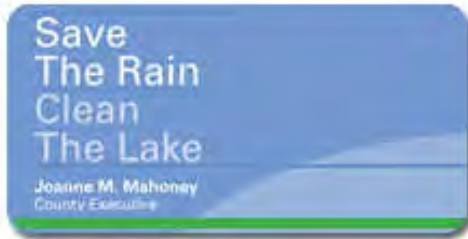
Project ID/Name: C-101 Skiddy Park Site

Proj Address: Tully St between Oswego and Tioga

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pavement Removal	10,000	10,000	176,000
Flexipave	17,000	4,000	299,000
GI Placeholder			
Total	27,000	14,000	475,000
Annual CSO Reduction (gal)			337,250





FACT SHEET

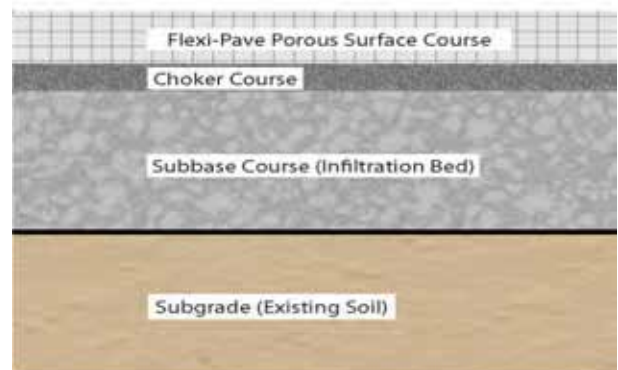
Skiddy Park Enhancements

Project Description:

The Skiddy Park Enhancements Project is done in collaboration with the City of Syracuse Parks Department and the Near West Side Initiative's new playground equipment project, and will be the second Save the Rain project to be completed at Skiddy Park this year (after the porous basketball courts).

This project consists of removing all existing asphalt pavement in the park and installing new 10 foot wide flexible porous pavement walkways. Around the existing field house will be an infiltration trench that captures runoff from both Tully and Tioga streets. In addition, a pilot for the Save the Rain City Parks Water Spray Fountain Volume Reduction Initiative will be implemented as part of this project. This will consist of removing the existing water spray feature and installing a new feature that will have a push button timer and control panel that will only allow the fountain to run at certain times during the day. This is a vast improvement compared to current conditions where the fountain runs all day and night from mid-May to mid-October. This measure alone prevents 493,000 gallons of water from entering the combined sewer annually. Overall, the project reduces 898,000 gallons of runoff annually.

Project:	Skiddy Park Enhancements
Project Owner:	Syracuse Parks Dept
Project Location:	300 Tioga St.
Sewershed:	Clinton/Lower MIS
GI Technology:	Flexible Porous Pavement, Spray Fountain Retrofit
Capture Area:	23,000 sq. ft.
Run-off Reduction:	898,000 gal/yr
Year Contracted:	2011
Construction Cost:	\$194,000 (est.)
Bid Date:	9/15/11
Prime Contractor:	ACTS II Construction



Schematic of Flexible Porous Pavement



New Water Spray Fountain Feature
(Courtesy: Water Odyssey)

Green Infrastructure Project Status Report

Project C-101: Skiddy Park Enhancements

DATE: January 2012

Contractor: ACTS II Construction

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Trees and Plantings

- 1A. Existing Trees.** The subsurface stormwater infiltration trenches infringed closely upon existing tree roots in the park. Inside the drip line of the trees, the tree roots were protected. During excavation, it was discovered that there were a few major tree roots outside of the drip lines. The contractor was instructed to prevent damage to these tree roots, and did so successfully.

Further Action Needed. For future projects, the location of green infrastructure (GI) will be closely evaluated with respect to proximity of trees. Site reconnaissance of surface features will occur to identify any potential main tree roots outside of the tree drip lines. Manual excavation will be specified in these areas.

- 1B. Planting Progress.** Due to the delays caused by the installation of the park's new playground equipment by the City of Syracuse Parks Department contractor, the Contractor was unable to install plantings by the end of the planting season (November 15th).

Further Action Needed: The Contractor will re-mobilize in spring 2012 to complete the remaining site civil work as well as landscaping and plantings.

- 1C. Planting Soils.** The planting soils originally specified S2 planting soil. However, during construction, it was determined that S3 and S1 planting soils should be used. A clarification was issued to the Contractor regarding the type of planting soils. No planting soils were placed in 2011 due to the lateness of work in the planting season and due to delays associated with the playground equipment installation.

Further Action Needed: The Contractor will install planting soils after remobilizing in spring 2012.

Item #2: Paving Materials

- 2A. Construction Traffic Coordination.** The design for this project included flexible porous pavement walkways. However, only the subsurface materials for the flexible porous pavement were installed in 2011. Flexible porous pavement was not installed due to the delay in the installation of the new playground equipment by the City of Syracuse Parks Dept. Installation of the playground equipment requires trafficking by medium-sized construction equipment over the pavement. It was determined that this could cause significant damage to the pavement surface if the pavement was installed. By the time the playground equipment was installed it was too late to install flexible pavement due to weather conditions.

Further Action Needed: All flexible porous pavements will be installed in spring 2011 after the completion of all other site-related work.

Item #3: Unforeseen Conditions

- 3A. Water Spray Fountain.** While excavating around the existing water spray fountain, a 12" thick circular concrete pad was found under the visible 7" pad. It was believed that this pad served as the spray fountain's original play area and was subsequently buried. The Contractor was able to remove a section of the pad to provide the proper connections to the new water spray fountain.
- 3B. Catch Basin Condition.** The existing catch basin used for bringing runoff from the street into the GI system on Tully Street was found to be in poor condition during construction. However, the contractor was able to install the specified connections without further damage to the structure.

Further Action Needed: On future green infrastructure projects, existing catch basins will be examined prior to construction, and catch basins needing repair will either be repaired or replaced, depending on their condition. The City will be contacted if a structure is found to be in poor condition. Ideally, the City will have a crew available to repair the structure while construction is taking place.

Item #4: Public Outreach

- 4A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

- 4B. Near Westside Initiative.** Public outreach for this project was also handled by the Near West Side Initiative due to the collaboration of this project with the planned playground equipment upgrades.

Project Metrics Summary

Bid Price	\$244,000
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$244,000
Total CSO Reduction	638,000 gallons
Cost per CSO Reduction	\$0.38 per gallon

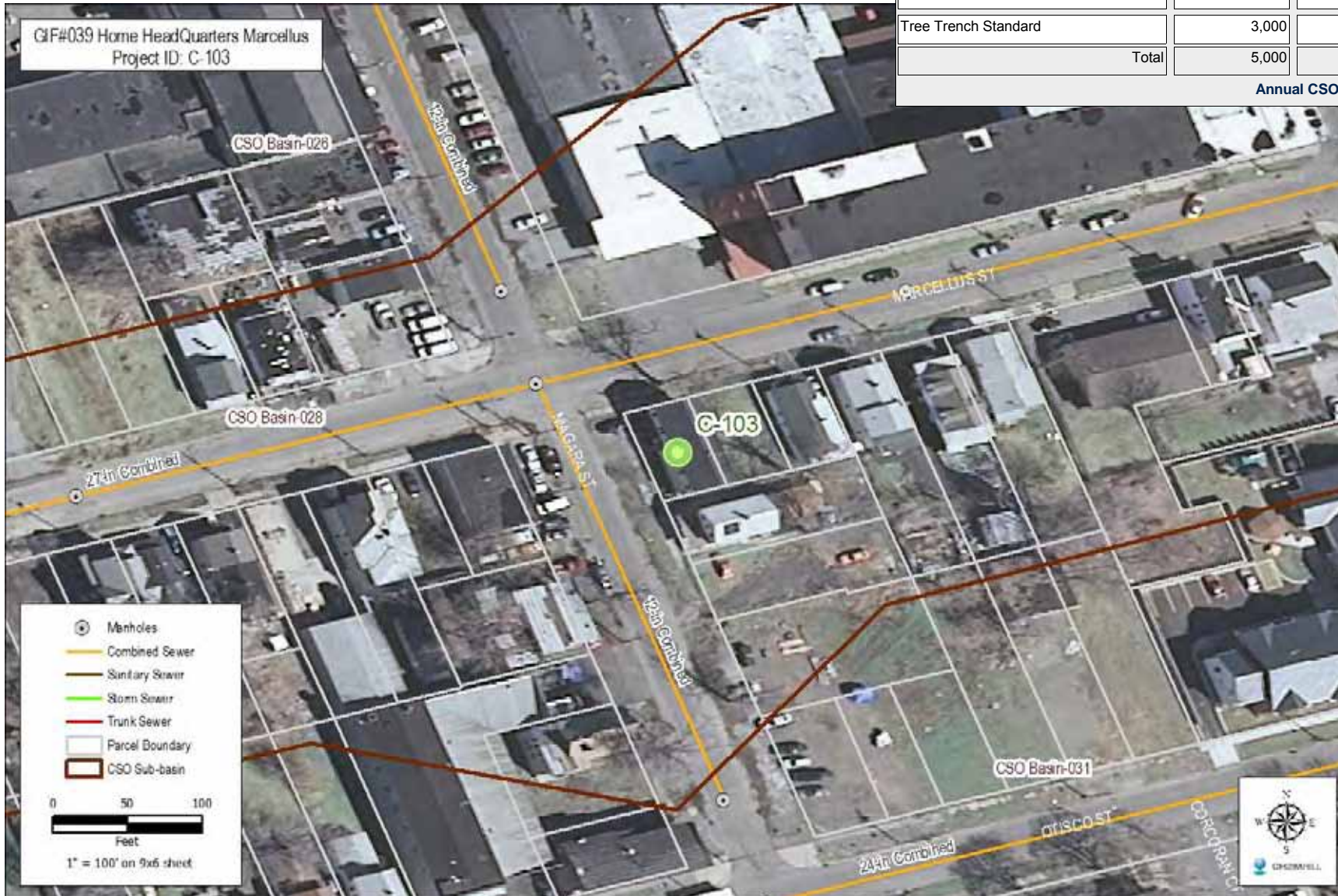


Project ID/Name: C-103 GIF#039 Home HeadQuarters Marcellus

Proj Address: 223 Marcellus St.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	1,000	1,000	10,000
Tree Trench Standard	1,000		23,000
Tree Trench Standard	3,000		56,000
Total	5,000	1,000	89,000
Annual CSO Reduction (gal)			63,190





Project ID/Name: C-105 GIF#041 CNY Philanthropy Center

Proj Address: 431 E Fayette St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	000	000	4,000
Bioretention	3,000	000	56,000
Porous Pavement Parking Lot	7,000	7,000	129,000
Total	10,000	7,000	189,000
Annual CSO Reduction (gal)			134,190





FACT SHEET

Central New York Jazz Arts Foundation

Project Description: The Central New York Jazz Arts Foundation project consists of the construction of a 3,000 square foot green roof at the property located on 441 E. Washington Street.

The green roof was constructed utilizing sedum and a 5-inch thick constructed soil medium. Sedum is a type of low-growing succulent vegetation that requires little maintenance once installed. The estimated annual capture of the roof is approximately 53,000 gallons.

The CNY Jazz Arts Foundation is a not-for-profit organization that is dedicated to providing, presenting and teaching jazz to the Central New York Community. In addition to the green roof construction, the current home of the Foundation has undergone several improvements to the facility to accommodate a wide variety of entertainment performance and services.



Project:	Central New York Jazz Arts Foundation
Project Owner:	Private
Project Location:	441 E. Washington St.
Sewershed:	Clinton
GI Technology:	Green Roof
Capture Area:	3,000 sq. ft.
Run-off Reduction:	53,000 gal/yr
Year Completed:	2011
GIF Award:	\$52,188



Green Roof Installation at Jazz Central

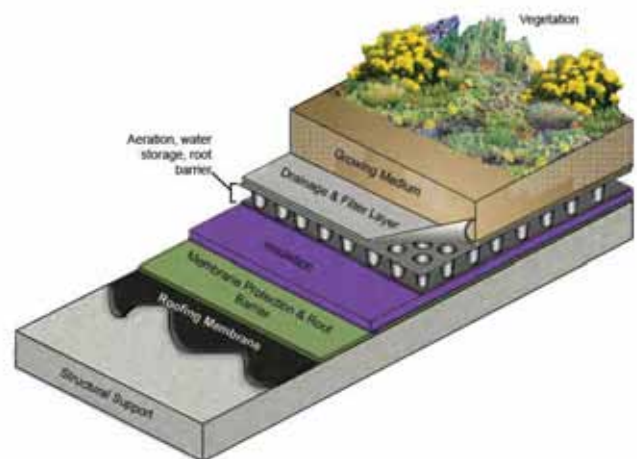


Diagram of Green Roof Implementation

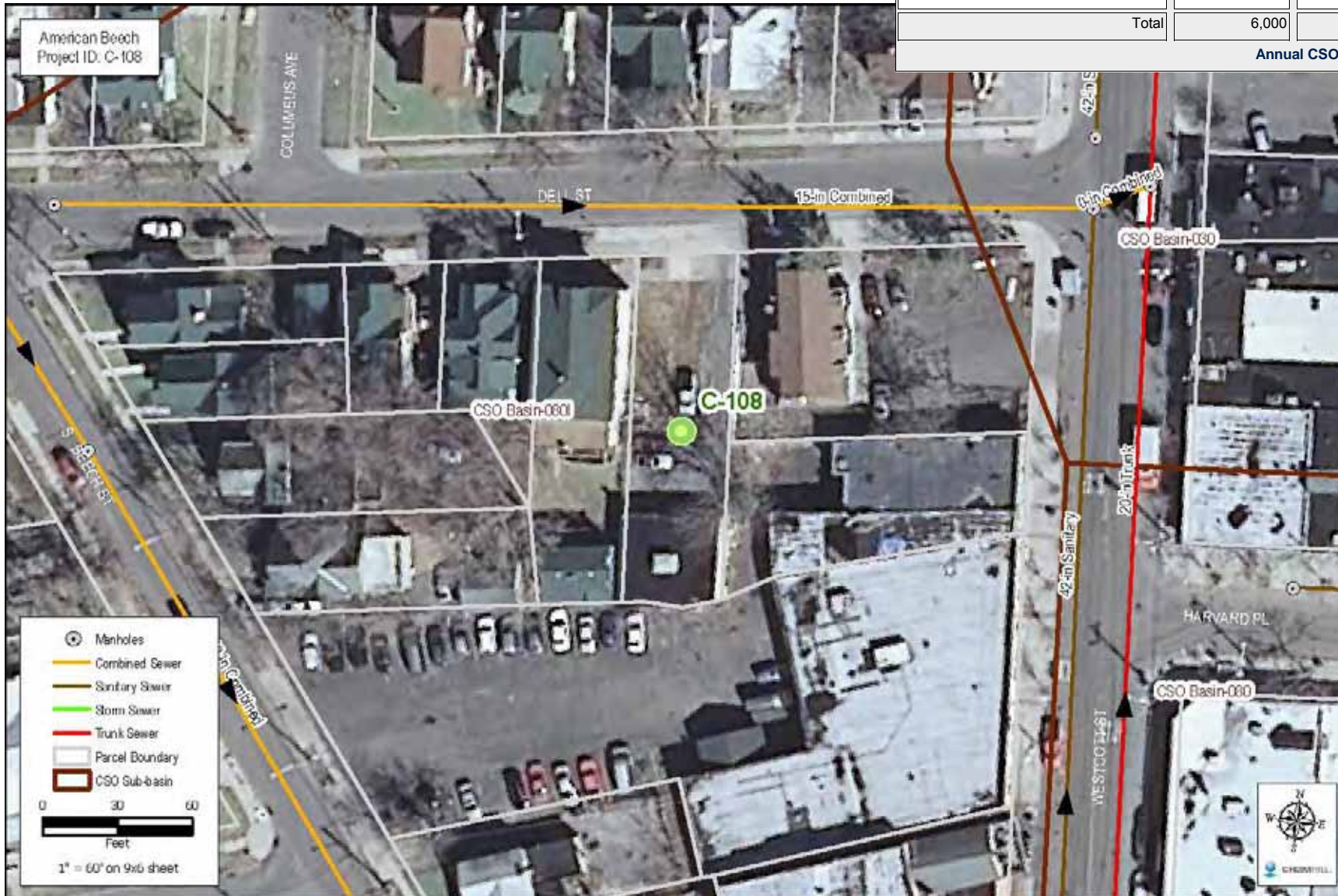


Project ID/Name: C-108 GIF#044 American Beech

Proj Address: 500 Westcott Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	4,000	2,000	74,000
GI Placeholder	2,000	000	33,000
Total	6,000	2,000	107,000
Annual CSO Reduction (gal)			75,970





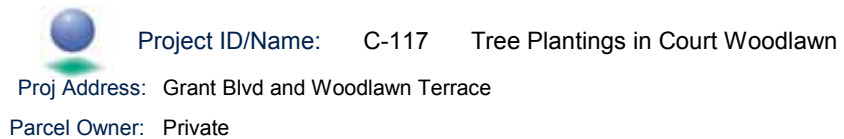
Project ID/Name: C-109 GIF#45 Pemco Montgomery

Proj Address: 217 Montgomery Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Bed	48,000		854,000
Total	48,000		854,000
Annual CSO Reduction (gal)			606,340





Parcel Owner: Private

Tree Plantings in Court Woodlawn
Project ID: C-117

Annual CSO

0 60 120
Feet
1" = 120' on 9x6 sheet

Manholes
Combined Sewer
Sanitary Sewer
Storm Sewer
Trunk Sewer
Parcel Boundary
CSO Sub-basin

C-117

12-in Trunk

33-in Storm

GRANT BLVD

CSO Basin 073-3

12-in Storm

12-in Sanitary

WOODLAWN TER

WINDY HILL

North Arrow

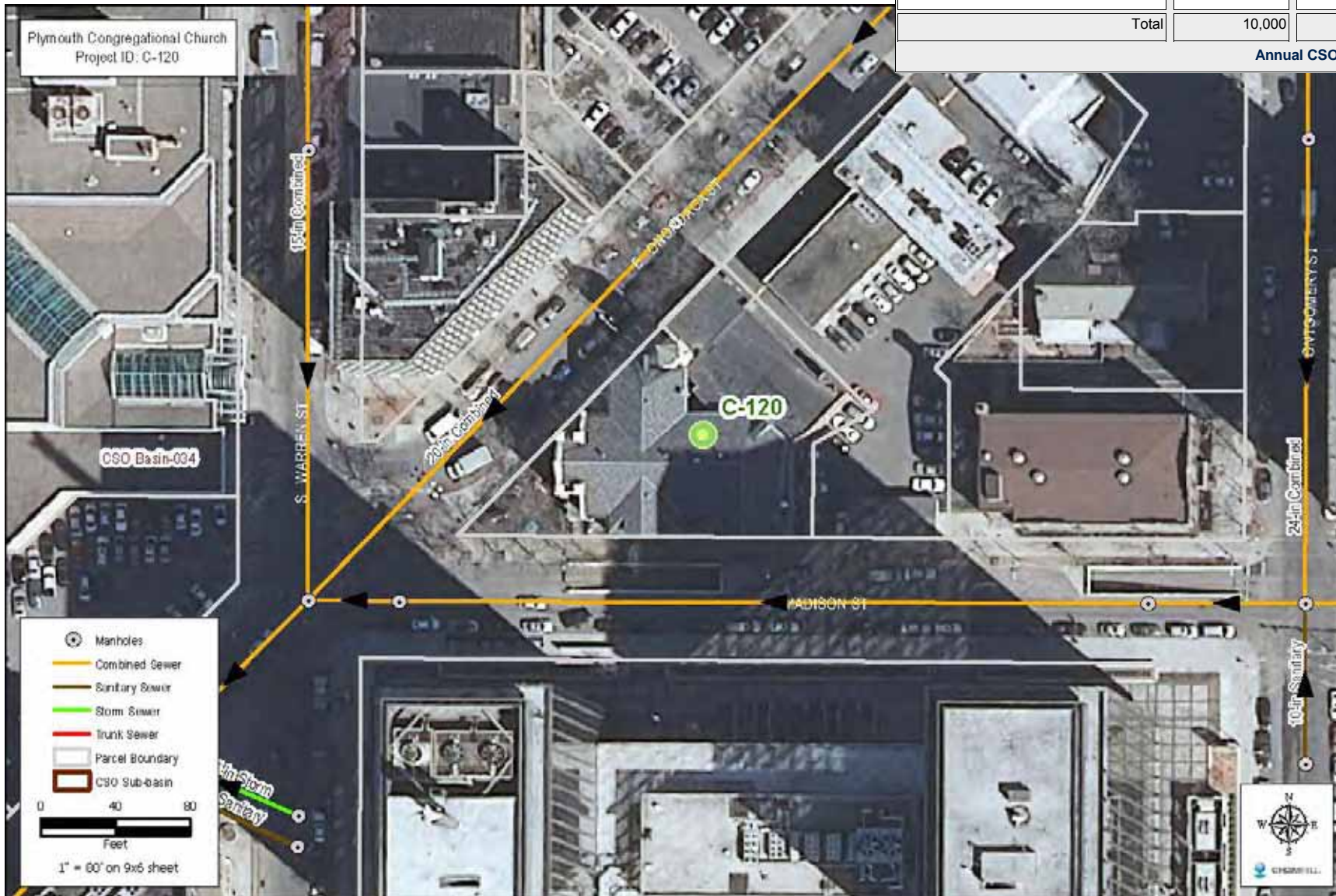


Project ID/Name: C-120 GIF#050 Plymouth Congregational Church

Proj Address: 232 E. Onondaga St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	3,000	000	61,000
Green Roof	7,000	3,000	120,000
Total	10,000	3,000	181,000
Annual CSO Reduction (gal)			128,510





Project ID/Name: C-121 GIF#051 Park Central Presbyterian Church

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	3,000	4,000	61,000
Total	3,000	4,000	61,000
Annual CSO Reduction (gal)			43,310



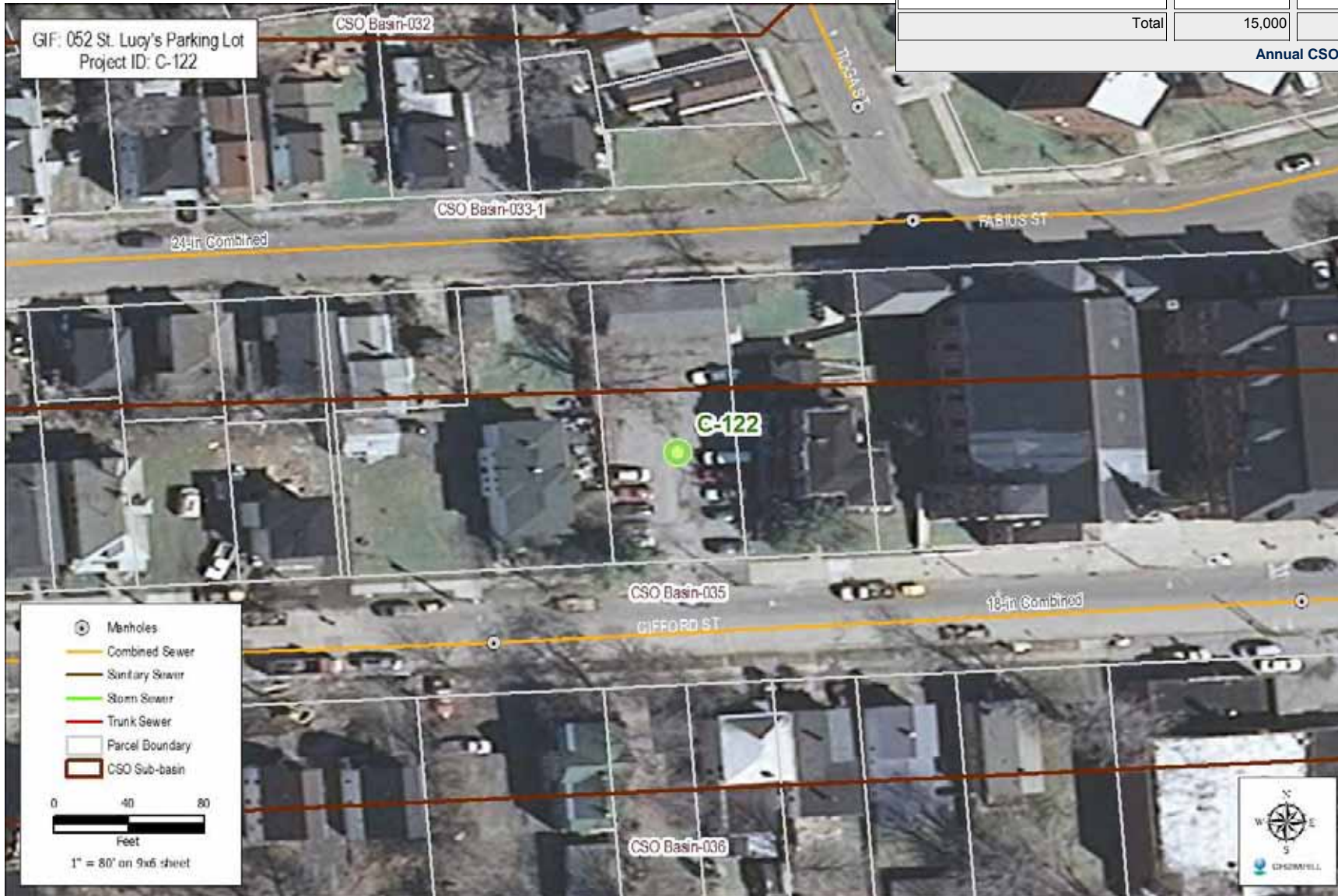


Project ID/Name: C-122 GIF#052 St. Lucy's Parking Lot

Proj Address: 432 Gifford Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Cistern/Rain Barrel	6,000	1,000	73,000
Porous Pavement Parking Lot	9,000	2,000	176,000
Total	15,000	3,000	249,000
Annual CSO Reduction (gal)			176,790

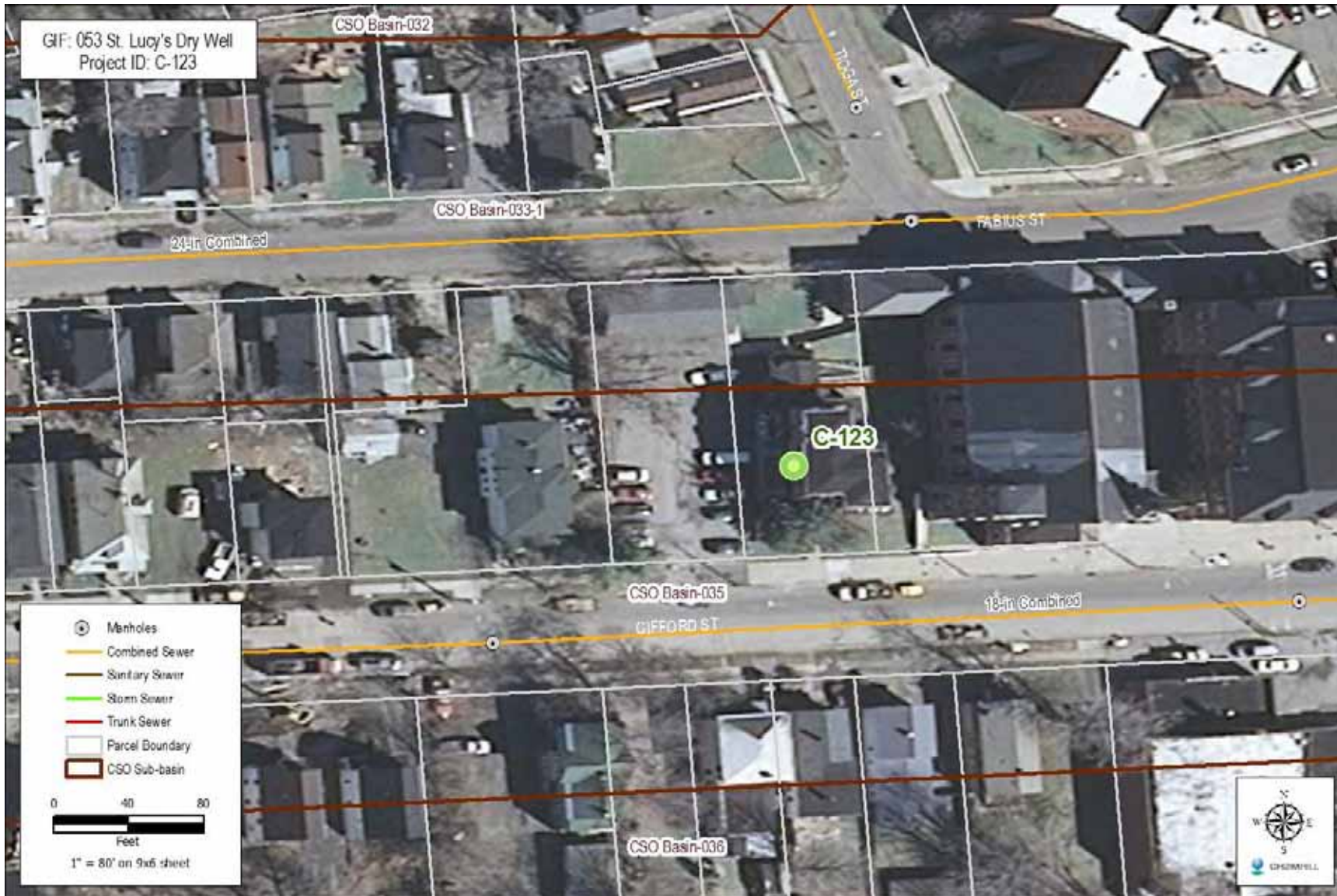




Project ID/Name: C-123 GIF#53 St. Lucy's Dry Well

Proj Address:

Parcel Owner: Private



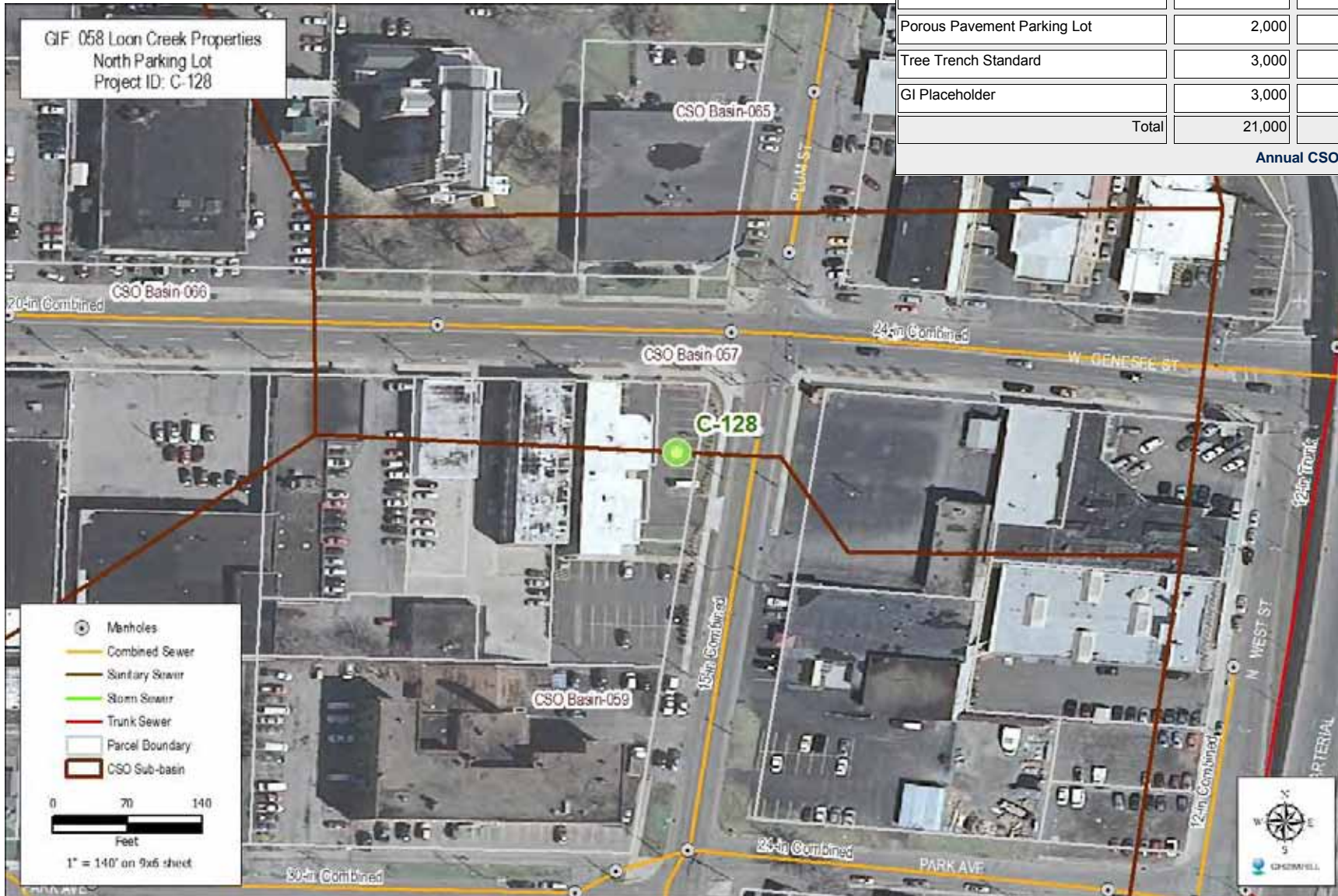


Project ID/Name: C-128 GIF#058 Loon Creek Properties

Proj Address:

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	7,000	2,000	134,000
Porous Pavement Parking Lot	6,000	5,000	111,000
Porous Pavement Parking Lot	2,000	2,000	32,000
Tree Trench Standard	3,000		53,000
GI Placeholder	3,000	000	53,000
Total	21,000	9,000	383,000
Annual CSO Reduction (gal)			271,930



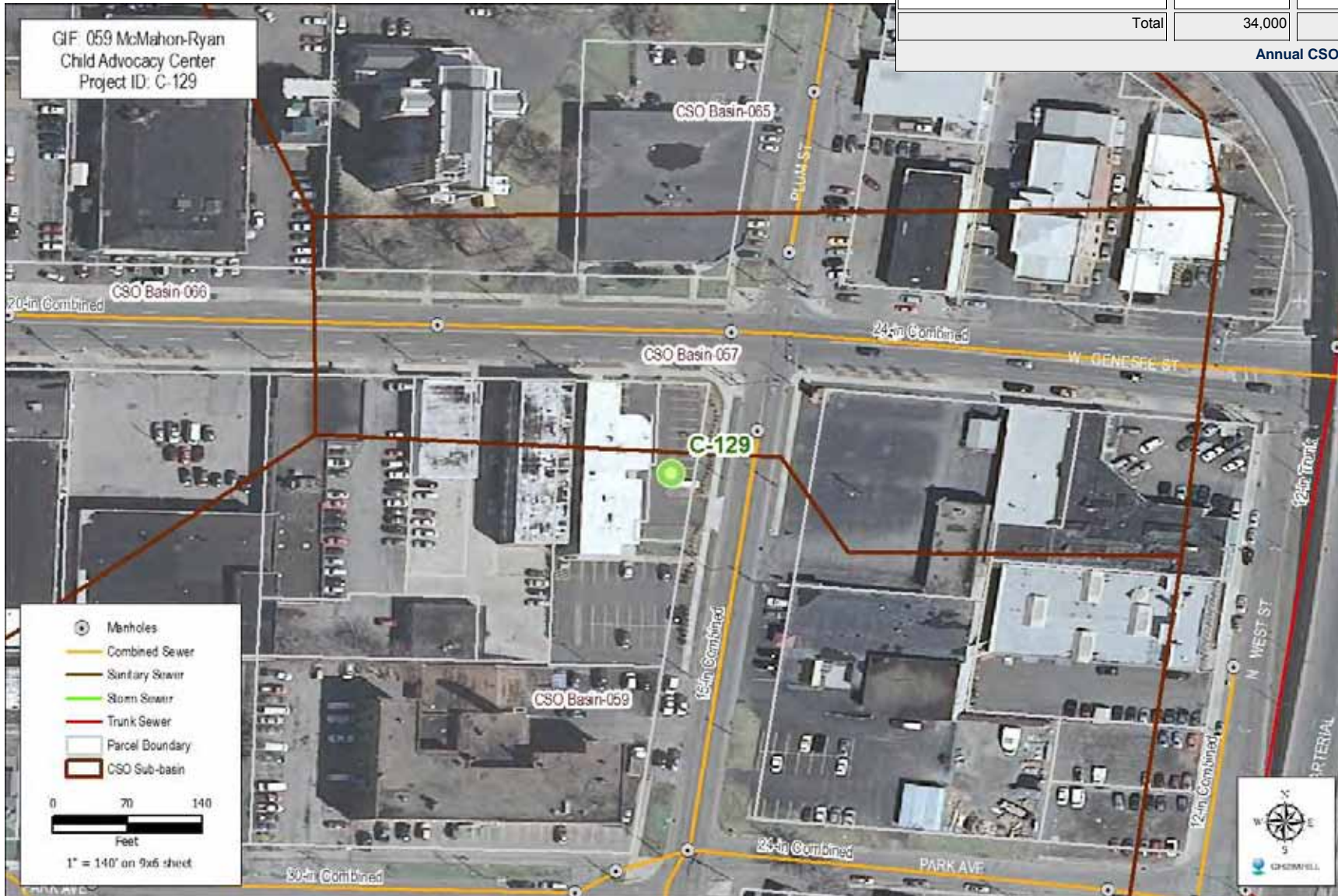


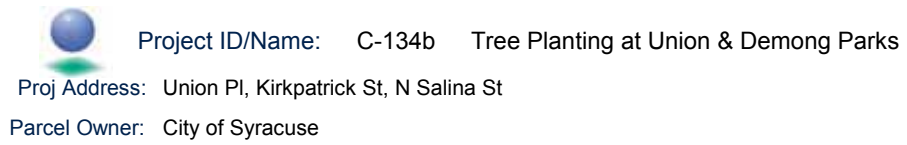
Project ID/Name: C-129 GIF#059 McMahon-Ryan Child Advocacy Center

Proj Address:

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	33,000	13,000	641,000
GI Placeholder	1,000	000	18,000
Total	34,000	13,000	659,000
Annual CSO Reduction (gal)			467,890





Parcel Owner: City of Syracuse

Tree Planting at Union & Demong Parks
Project ID: C-134b

Annual CSO

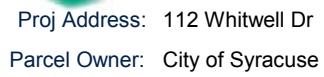
Map Legend:

- Manholes
- Combined Sewer
- Sanitary Sewer
- Storm Sewer
- Trunk Sewer
- Parcel Boundary
- CSO Sub-basin

Scale: 1" = 80' on 9x6 sheet

Map Labels:

- LODI ST
- N SALINA ST
- C-134b
- KIRKPATRICK ST
- UNION PL
- TRUSMAY
- CSO Basin-020-1

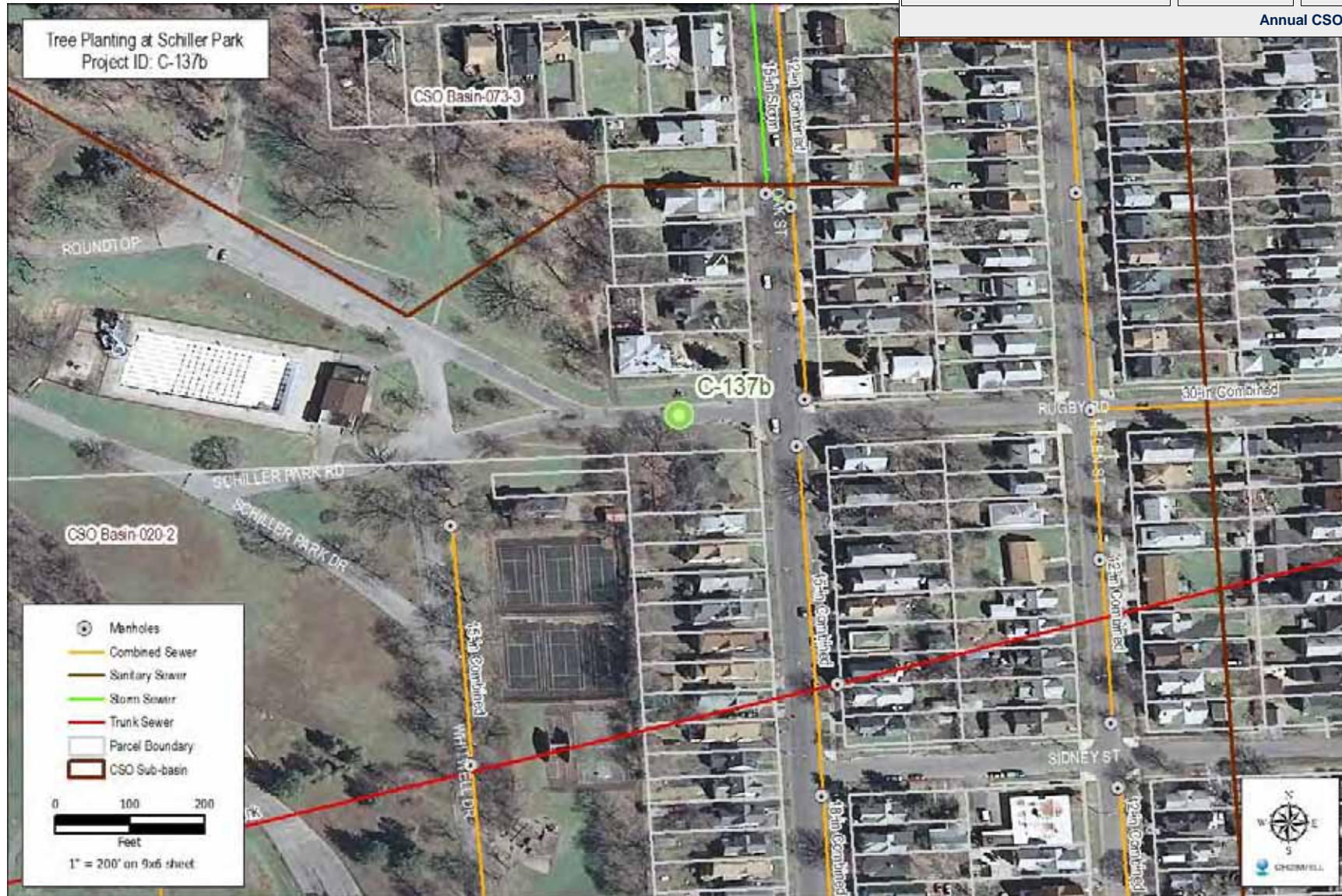


Project ID/Name: C-137b Tree Planting at Schiller Park

Proj Address: 112 Whitwell Dr

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Street Trees	9,000	2,000	160,000
Total	9,000	2,000	160,000
Annual CSO Reduction (gal)			113,600



Parcel Owner: Private

Project ID/Name: C-139 GIF#060 Kopp Billing Agency

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Trench	19,000		331,000
Total	19,000		331,000
Annual CSO Reduction (gal)			235,010





Project ID/Name: C-140 GIF#061 The Spa at 500 Green Roof

Proj Address: 500 W Onondaga St

Parcel Owner: Private





Project ID/Name: C-141 GIF#062 Peace Incorporated

Proj Address: 200 Wyoming Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	3,000	3,000	62,000
Total	3,000	3,000	62,000
Annual CSO Reduction (gal)			44,020

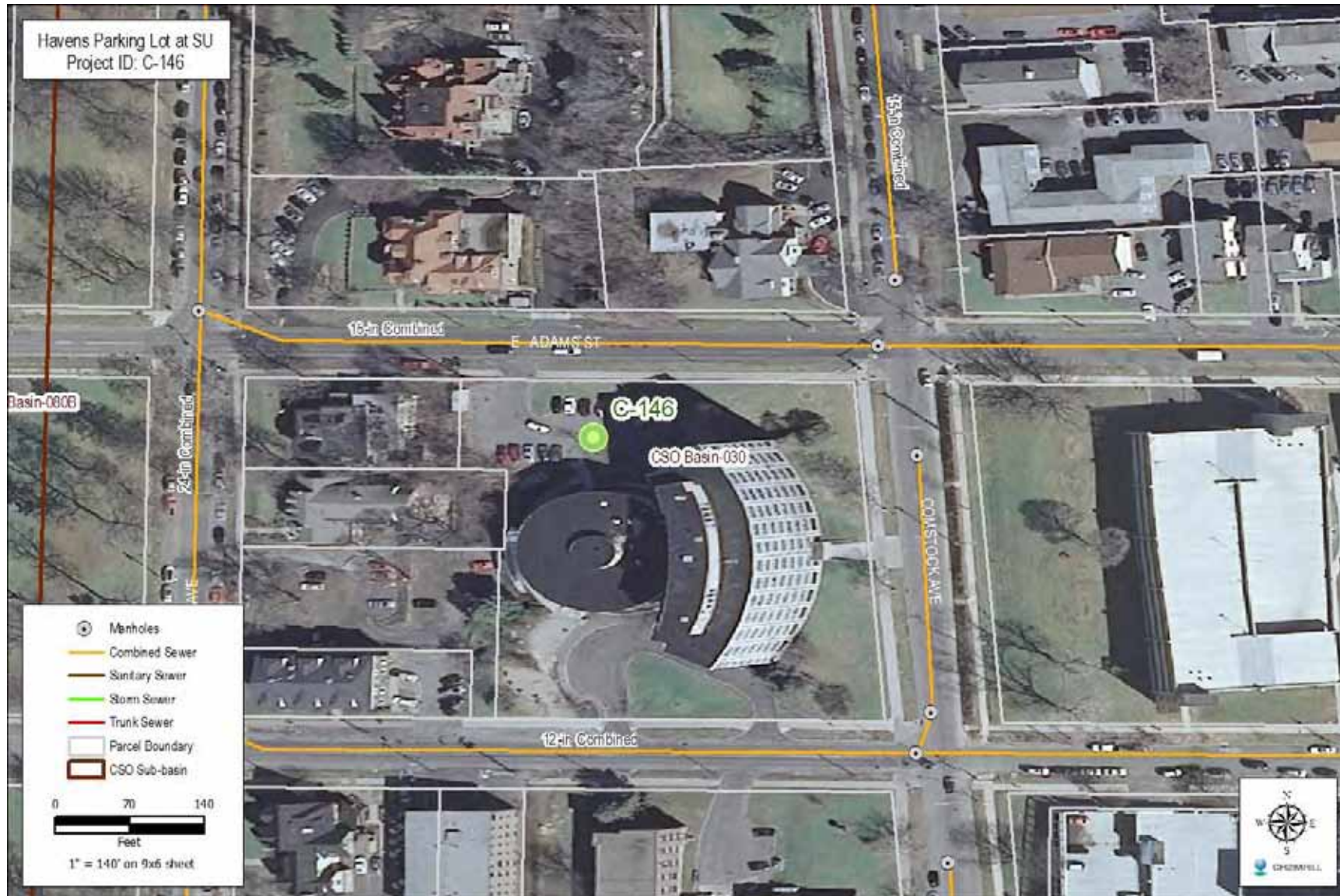




Project ID/Name: C-146 Havens Parking Lot at SU

Proj Address: E Adams St and Comstock Ave

Parcel Owner: Syracuse University

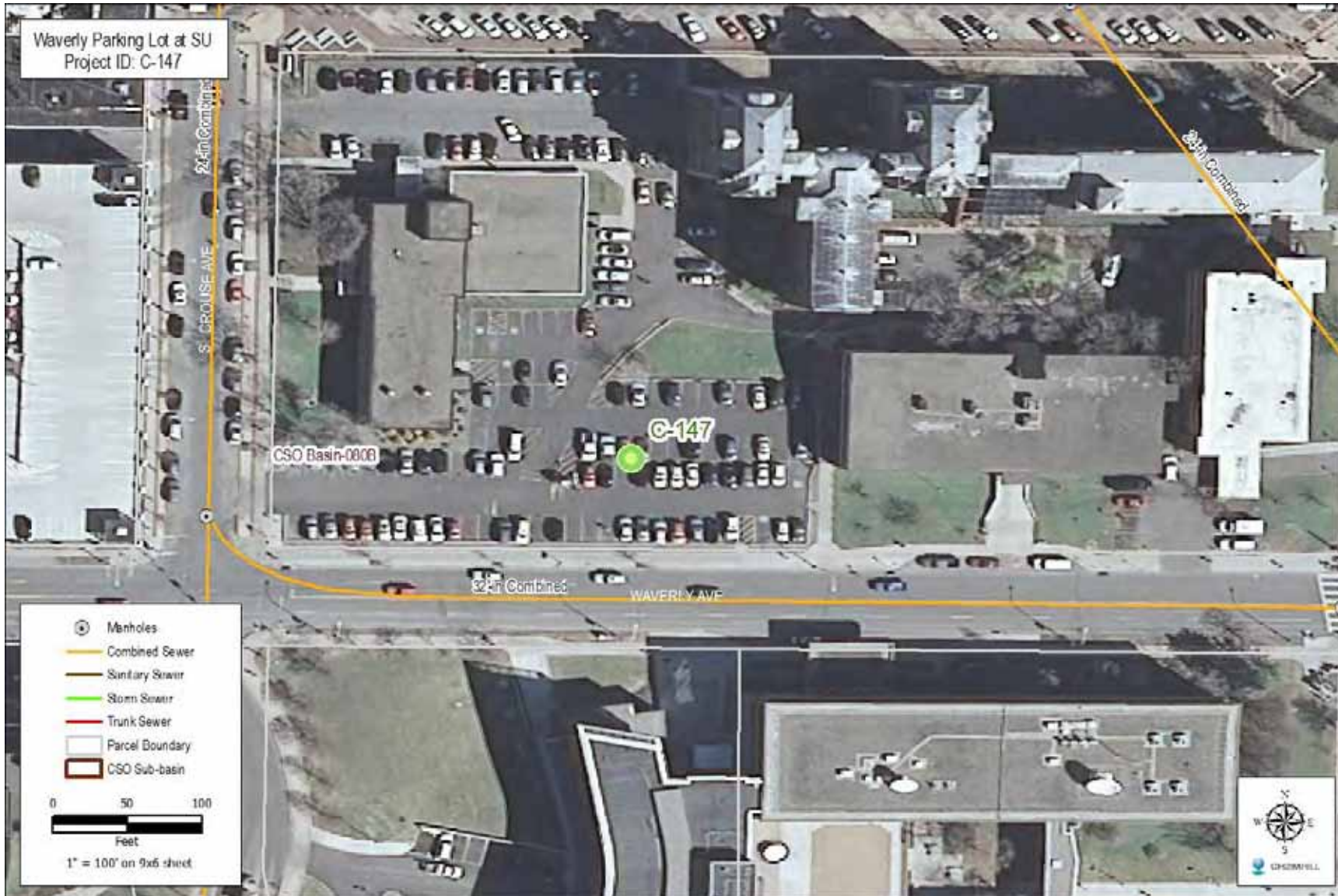




Project ID/Name: C-147 Waverly Parking Lot at SU

Proj Address: 805 South Crouse Avenue

Parcel Owner: Syracuse University

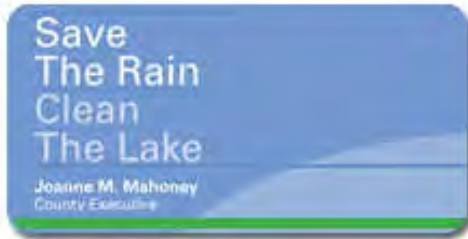




Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Infiltration Trench	38,521	3,387	678,426
Total	38,521	3,387	678,426





FACT SHEET

Green Street: Concord Place

Project Description: Concord Place is the first “green street” in Syracuse. This project demonstrates a subtle approach to managing stormwater with the installation of infiltration trenches along the street corridor. Stormwater enters the system through the existing storm drain connections in the street. Instead of the collected water flowing to the sewer system, as was previously the case, the water is directed to an underground trench filled with a stone base. As the water enters the trench, it slowly filters through the compacted stone and soil, eventually releasing into the ground water. In addition to the underground infiltration system, Concord Place also received a new mill and pave application to the street surface.

This type of project is unique among green infrastructure projects – although above the surface it appeared to be a traditional street paving process, below the street green infrastructure was installed to more effectively manage stormwater and protect our water resources.

The completion of the renovation of Concord Place is the first of several planned “green street” projects within the Save the Rain program.

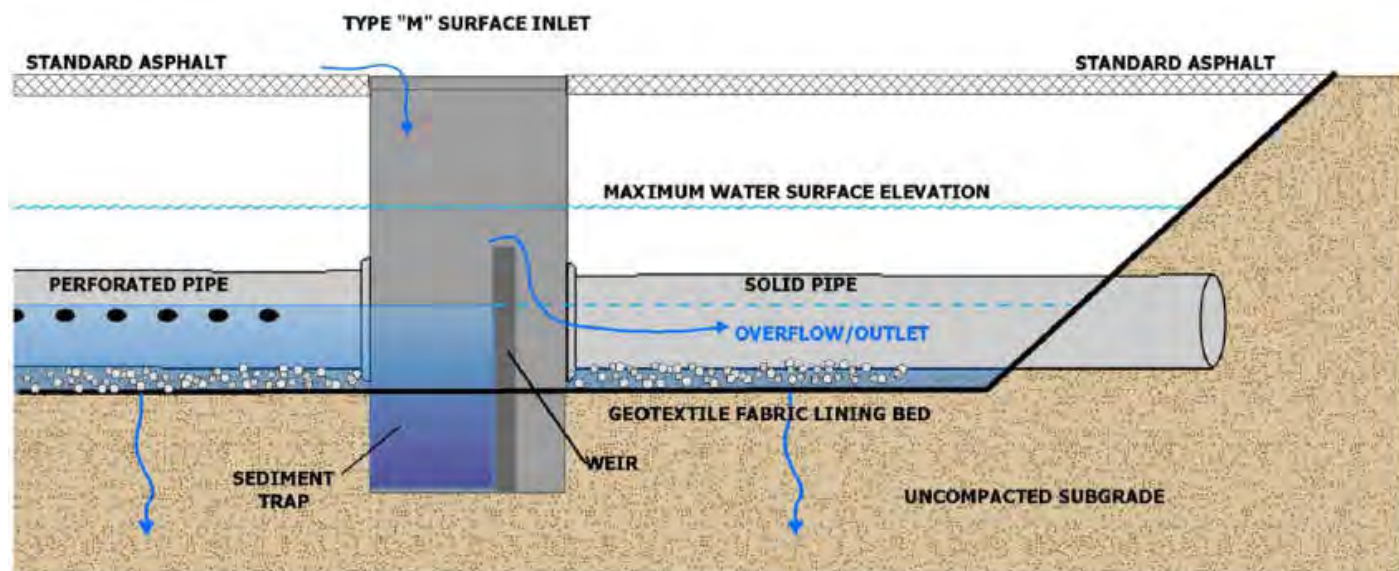
Project:	Concord Place
Project Owner:	Onondaga County
Project Location:	Concord Place from Westcott St to Allen St
Sewershed:	Erie Blvd Storage System
GI Technology:	Infiltration Bed
Capture Area:	39,000 sq. ft.
Run-off Reduction:	955,000 gal/yr
Year Completed:	2011
Construction Cost:	\$78,900
Prime Contractor:	Cornerstone Paving



Concord Place (looking south)



Concord Place (looking from center island)



Conceptual design showing standard asphalt with the subsurface infiltration bed



Construction of the underground infiltration trench at Concord Place

Green Infrastructure Project Completion Report

Project E-10: Concord Place

DATE: January 2012

Contractor: Cornerstone Paving, Inc.

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Subsurface Infiltration Bed and Catch Basins.** The stormwater capture mechanism for the Concord Place project takes place through City catch basins not containing filter inserts, conveying water into a subsurface stormwater infiltration bed. This design is green infrastructure that is completely underground versus other systems, such as rain gardens, that are above ground. The catch basins in this system will need to be cleaned regularly so that sediment and other materials do not clog the infiltration system.

Further Action Needed: The City DPW will need to continue monitoring and cleaning the catch basins on Concord Place regularly. Performance of the infiltration bed system will be monitored visually via the cleanouts and observation wells that exist in the system for buildup of sediment. In the event that the system is found to be filling with sediment, it will be cleaned so that it operates efficiently in the future.

Item #2: Collaboration with City Street Structures Contract

- 2A. Construction.** The Concord Place project was constructed using the existing City Street Structures Contract. This was done by utilizing a change order to the contract, paid for by the County. This process allowed for a lower construction cost for the project. Furthermore, Concord Place was on the City's Road Reconstruction List, and as a result was reconstructed by the City after the completion of the green project.

Further Action Needed: City DPW has supplied CH2M HILL with the planned road reconstruction list for 2012 and 2013 for further cooperation between the City and the County on green infrastructure projects. As of the date of this report, CH2M HILL is evaluating the list and planning accordingly for future green infrastructure projects.

Item #3: Public Outreach

- 3A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price*	\$78,970
Change Order Total	\$0
Total Project Cost	\$78,970
Total CSO Reduction	481,000 gallons
Cost per CSO Reduction	\$0.16 per gallon

*Note: Project was not County Procured. Project completed using City Street Structures Contract.



Project ID/Name: E-12 Dr Edwin E Weeks Elementary School

Proj Address: 710 Hawley Ave

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	76,000	4,000	1,335,000
Bioretention	48,000	3,000	842,000
Total	124,000	7,000	2,177,000
Annual CSO Reduction (gal)			1,545,670





Project:	Dr. Weeks Elementary School
Project Owner:	Syracuse City School District
Project Location:	710 Hawley Ave
Sewershed:	Clinton/Lower MIS
GI Technology:	Bioretention
Capture Area:	124,000 sq. ft.
Run-off Reduction:	2,177,000 gal/yr
Year Contracted:	2011
Construction Cost:	TBD
Prime Contractor:	Fahs Construction

FACT SHEET

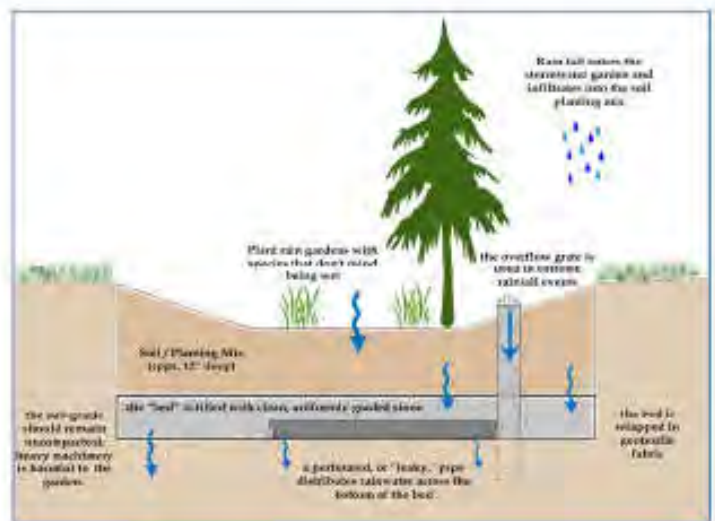
Syracuse City School District Dr. Weeks Elementary School

Project Description: The Dr. Weeks Elementary School Project will include green infrastructure enhancements in conjunction with an existing project at the school managed by the Joint School Construction Board (JSCB). The JSCB will be implementing a wide-range of retrofit enhancements to the school building and property with the Save the Rain Program providing green infrastructure improvements.

The project consists of two bioretention areas that are designed to capture runoff from nearly all of the impervious area surrounding the site. This includes all of the paved areas in and around the playground and the parking lot adjacent to the school. In total, this project will prevent 2,177,000 gallons of stormwater from entering into the combined sewer system annually.



**Aerial View of Dr. Weeks Elementary School
Before Construction**



Conceptual Rendering of Rain Garden

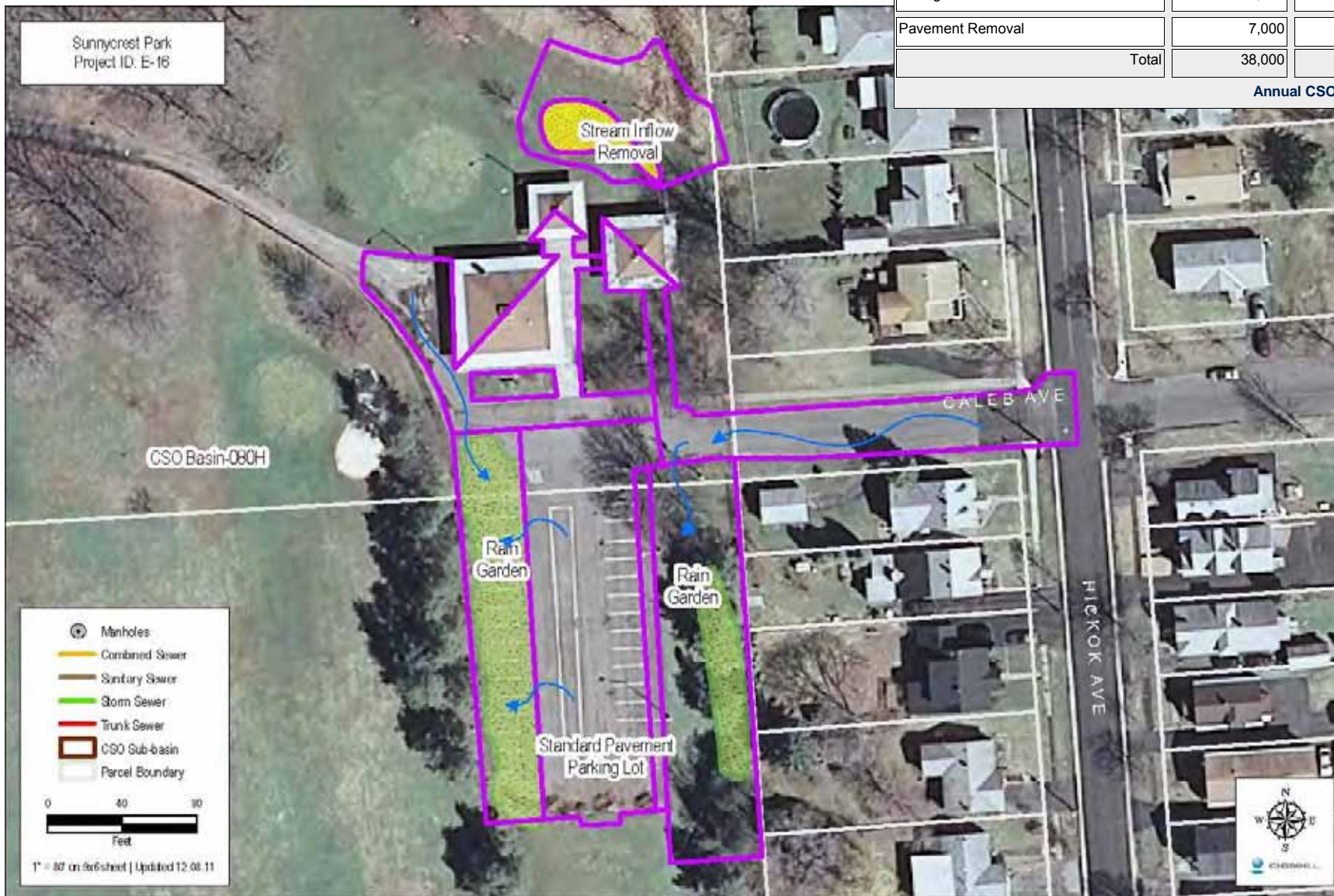


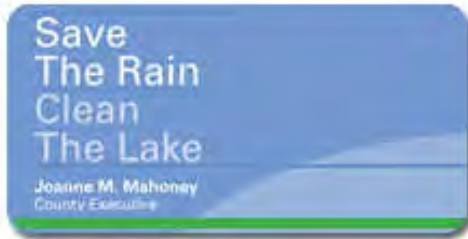
Project ID/Name: E-16 Sunnycrest Park Golf Parking Lot

Proj Address: Caleb Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	22,000	6,000	417,000
Storage Bed	9,000	2,000	171,000
Pavement Removal	7,000	7,000	124,000
Total	38,000	15,000	712,000
Annual CSO Reduction (gal)			505,520





FACT SHEET

Sunnycrest Park Golf Course Parking Lot

Project Description: The project will take place at the existing surface parking lot located at the Sunnycrest Golf Course on Caleb Avenue.

The existing asphalt surface will be reduced in size while maintaining the same number of parking spaces. The project will consist of pavement removal and stormwater capture into two separate bioretention areas: one intercepting stormwater flows from Caleb Avenue and the other from the existing parking lot. In addition, an existing catch basin capturing runoff from the golf course will be raised to prevent stormwater from entering the combined sewer system.

Elements of this project will mirror traditional infrastructure with the majority of the parking surface receiving a new standard asphalt top coat. The parking lot will be graded to send flow to one of the bioretention areas via curb inlets.

This is one of two projects at Sunnycrest Park (including the arena parking lot). Onondaga County is partnering with the City of Syracuse Parks Department on this and several other projects throughout the City.

Project:	Sunnycrest Golf Course
Project Owner:	Syracuse Parks Dept.
Project Location:	Caleb Avenue
Sewershed:	Erie Blvd Storage System
GI Technology:	Stream Inflow Removal, Bioretention
Capture Area:	48,000 sq. ft.
Run-off Reduction:	843,000 gal/yr
Year Contracted:	2011
Construction Cost:	\$362,599
Prime Contractor:	ACTS II Construction



Sunnycrest Golf Course Parking Lot after Pavement Removal & Construction of Bioretention Areas



Left: Aerial View of Sunnycrest Golf Parking Lot
Below: Conditions prior to construction



Version 12/29/2011

Green Infrastructure Project Status Report

Project E-16: Sunnycrest Park Golf Parking Lot

DATE: January 2012

Contractor: ACTS II Construction

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater Details and Specifications

- 1A. Granite Curb with Only Base Course Pavement.** Due to the fact that only base course paving was installed in the parking lot in the fall of 2011, the curbing will be more susceptible to damage as the result of a vehicle striking it. The City Parks Dept. has been notified of this and will take the appropriate precautions when plowing the lot during the winter of 2012.

Item #2: Trees and Plantings

- 2A. Planting Soils.** The original Contract Drawings for this project specified only S3 planting soils in the large bioretention area west of the parking lot. The drawings were revised to include a minimum 18 inches of S3 planting soil and a minimum of 6 inches of S1 planting soil. The modification amount for this change has not been finalized as of the date of this report.

Further Action Needed: Future designs will clearly denote depths of S3 and S1 planting soils on the Contract Drawings.

- 2B. Planting Progress.** No plantings occurred in the fall of 2011 because doing so would have resulted in planting outside the specified planting window, and would thus negate plant warranties.

Further Action Needed: The contractor will remobilize in the spring of 2012 and complete all civil site work and planting of all landscaping as called for in the specifications.

Item #3: Topographic Survey

- 3A. Mislabeled Manhole.** The topographic survey identified a manhole east of the parking lot. However, during construction it was found that this manhole was actually a dry well with no bottom of the structure present. This prompted a design change directing the overflow from the system to a different location in the parking lot. The cost for this change was finalized at \$4,466.71 and a change order to the contract is being processed as of the date of this report.

Further Action Needed: The surveyor has been notified of this discrepancy and in future surveys will note whether a manhole or dry well has a hard bottom surface. Further, the site visits for future projects will examine all structures (manholes, dry wells, catch basins, etc.) at each site in regards to their condition.

Item #4: Coordination with National Grid

- 4A. Light Pole Relocation.** During construction, coordination with National Grid was required for the removal and relocation of light poles on the west side of the parking lot. National Grid took several days to perform this work and resulted in a minor pause in green infrastructure (GI) construction.

Further Action Needed: Coordination and notification to National Grid (and other utilities) will be completed as soon as possible and sensible, ideally during the design phase.

Item #5: Winterizing and Protection of Construction Site

- 5A. Winter Punch List.** In early December the Contractor determined that the site would be shut down for the winter as he could no longer effectively schedule materials such as concrete and asphalt. As a result, a punch list was prepared with the City Parks Department that called for the Contractor to protect the site during the winter months. The list included: reinstallation of the light poles and energizing of lights for the parking lot, identification of structures with cones and barrels and shimming of rims with cold patch for protection against snow plows, and marking the GI basin with orange snow fence and reflectors.

Further Action Needed: The Contractor returned to the site and complied with the punch list items above with the exception of the light pole reinstallation. At the Contractor's request, the Parks Department was contacted and asked if the lights would be needed - Parks responded that they would not. The Contractor will return in spring 2012 to complete the remaining work on the project.

Item #6: Public Outreach

- 6A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$362,599
Change Order Total as of 12/31/11	\$4,466.71
Total Project Cost as of 12/31/11	\$367,065.71
Total Estimated CSO Reduction	506,000 gallons
Cost per CSO Reduction	\$0.72 per gallon

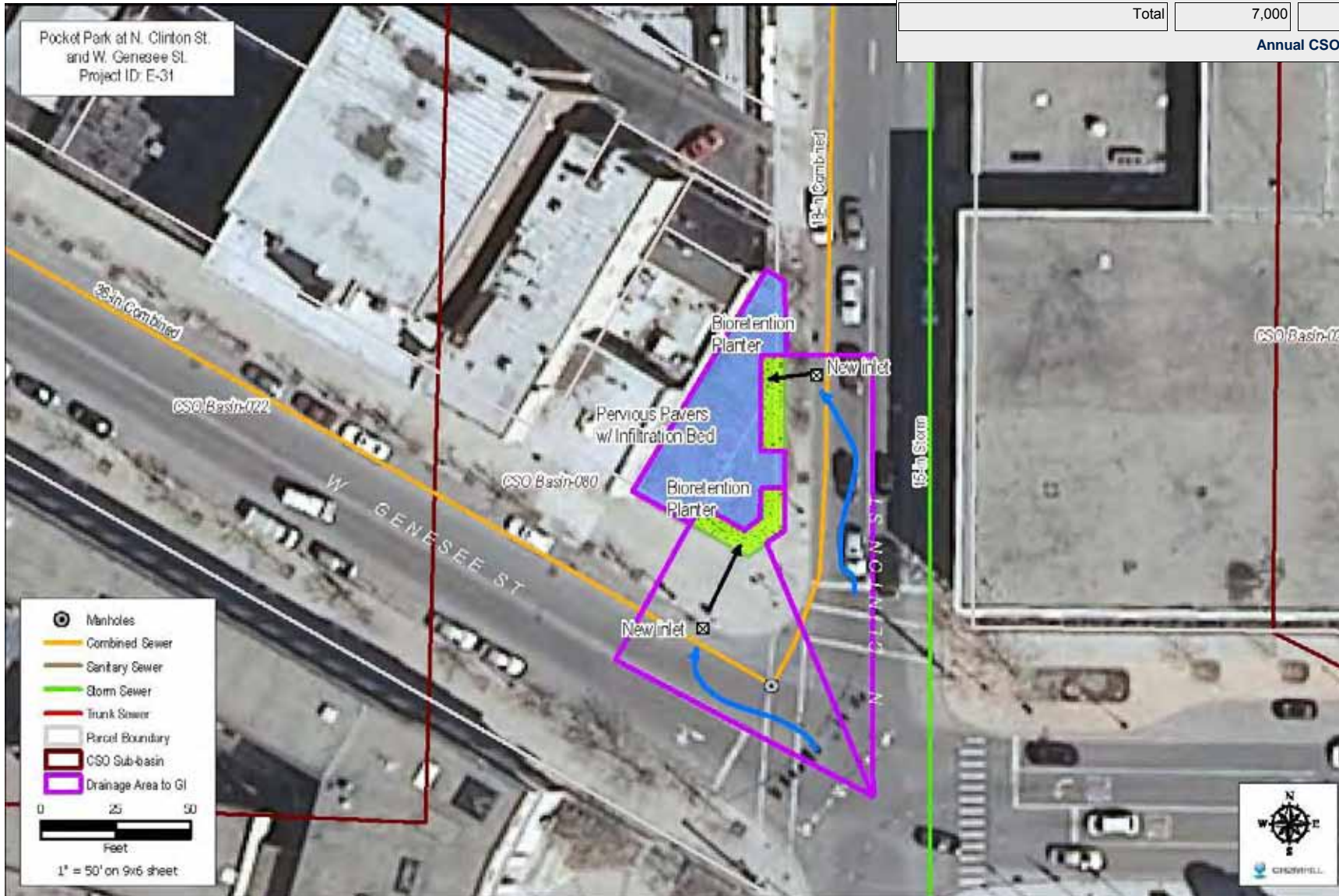



Project ID/Name: E-31 Pocket Park at N. Clinton St. and W. Genesee St.

Proj Address: 200-202 W. Genesee St.

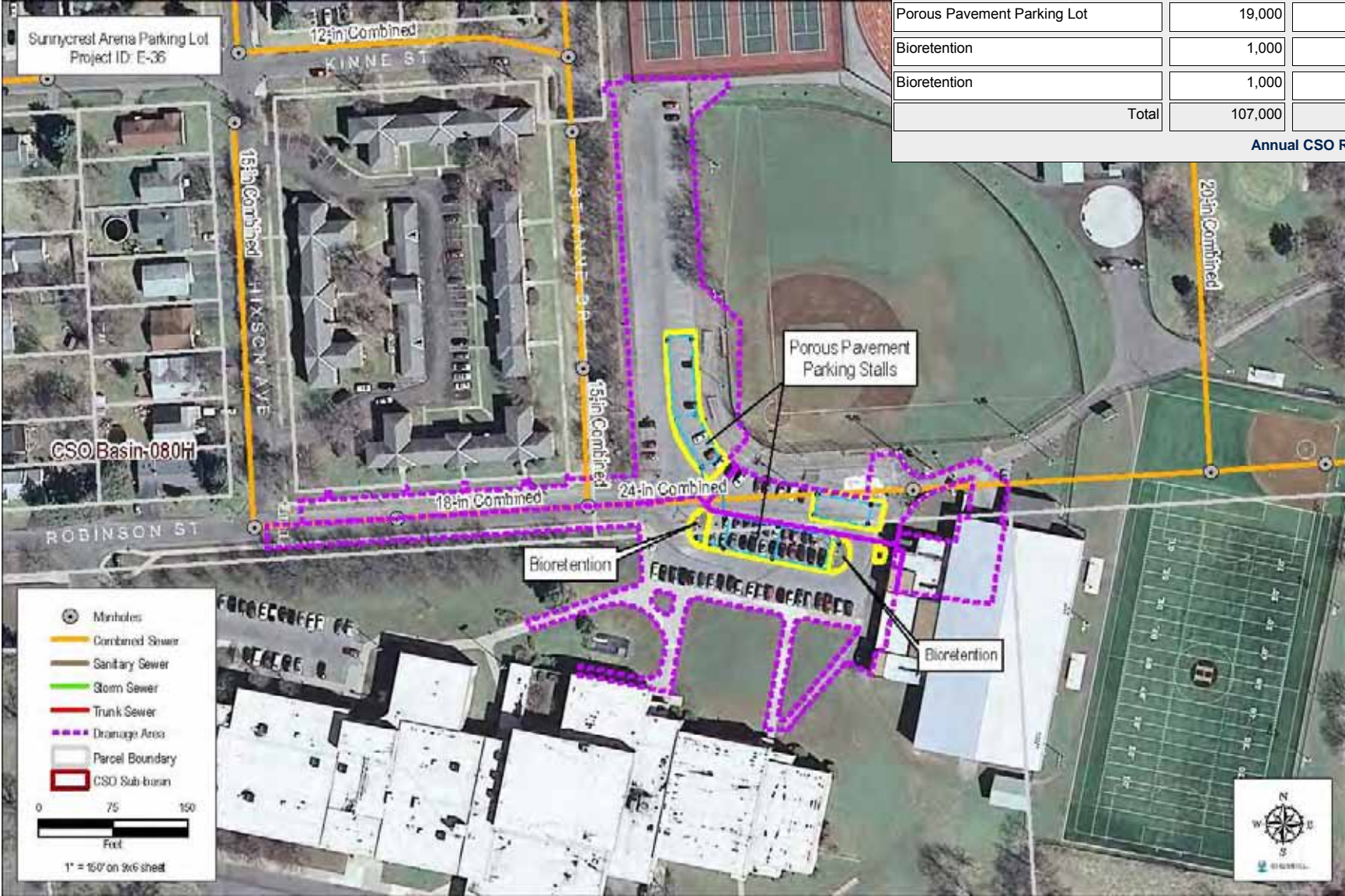
Parcel Owner: City of Syracuse

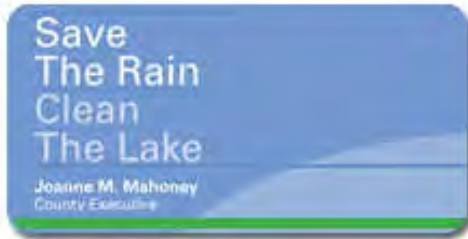
Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	6,000	000	102,000
Porous Pavement Sidewalk	1,000	1,000	23,000
Total	7,000	1,000	125,000
Annual CSO Reduction (gal)			88,750




 Project ID/Name: E-36 Sunnycrest Arena Parking Lot
 Proj Address: St. Anne Drive and Robinson St.
 Parcel Owner: City of Syracuse Parks

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	48,000	5,000	838,000
Porous Pavement Parking Lot	38,000	5,000	675,000
Porous Pavement Parking Lot	19,000	2,000	343,000
Bioretention	1,000	1,000	10,000
Bioretention	1,000	1,000	10,000
Total	107,000	14,000	1,876,000
Annual CSO Reduction (gal)			1,331,960





FACT SHEET

Sunnycrest Park Arena Parking Lot

Project Description: The project will take place at the existing surface parking lot located at the Sunnycrest Park Arena, adjacent to Henninger High School.

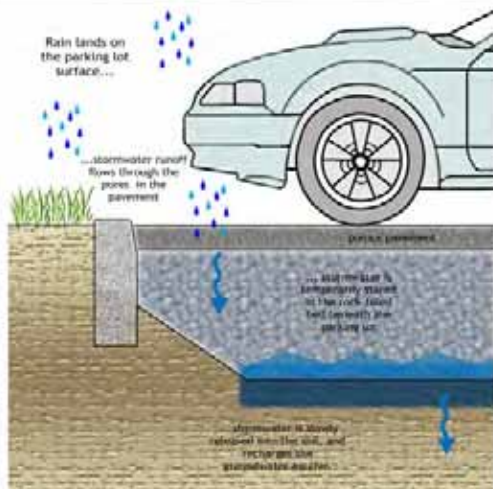
The existing asphalt surface will be replaced with porous asphalt parking spaces in the center section of the main parking area and along the outer parking stalls of the baseball field. In addition, the project will include enhanced street plantings (28 trees) and two bioretention areas designed to capture flow from the standard pavement portion of the parking lot.

The Sunnycrest Arena Parking Lot Project is one of the most cost-effective green parking lot projects in the Save the Rain program. Estimated capture is close to 2 million gallons annually.

Project:	Sunnycrest Park Arena
GI Technology:	Porous Pavement, Bioretention
Project Location:	Robinson St.
Project Owner:	Syracuse Parks Dept.
Sewershed:	Erie
Capture Area:	107,000 sq. ft.
Run-off Reduction:	1,876,000 gal/yr
Year Completed:	2011
Construction Cost:	\$431,000 (est.)
Bid Date:	8/16/11
Prime Contractor:	Ruston Paving



Aerial Photo of Sunnycrest Arena Parking Lot



Depiction of Porous Pavement



Existing Conditions

Green Infrastructure Project Status Report

Project E-36: Sunnycrest Park Arena Parking Lot

DATE: January 2012

Contractor: Ruston Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Site Details and Specifications

- 1A. Reusing Existing Curbing.** The existing granite curbing around the “green islands” in the middle of the parking lot was marked to be reused in the Contract Drawings. However, during construction, it was noted that some curbing (approximately 24 linear feet) was in poor condition and/or unusable. It was decided, however, that the curbing would be reused, with the exception of a few pieces that were damaged beyond reuse. The additional costs for new granite curbing were \$576. A change order for this and the additional asphalt pavement noted in this report is currently being processed.

Further Action Needed: During the design phase of all future projects where granite curbing is marked to be reused, the granite curbing will be examined in the field during design to note its condition. In the event that the curbing is in poor condition, a decision between the property owner and the County will be made on whether to replace the curbing entirely or in part.

Item #2: Trees and Plantings

- 2A. Planting Progress.** Planting of trees, shrubs and plugs took place on 4 and 10 November. It was noted that shrubs and plugs were planted after the specified latest date of 15 October while trees were planted before 15 November in accordance with the specifications. Additional issues (depth of plant, depth of mulch, configuration of hole, etc.) related to the way the plantings took place were added to a punch list.

Further Action Needed: The contractor will remobilize in the spring of 2011 to complete punch list items related to site landscaping. The condition of plants will be closely evaluated since the warranties for shrubs and plugs will not start until the spring of 2012 and trees will be started as of the planting date.

- 2B. Grass vs. Sod.** Adjacent to the ice rink at Sunnycrest Park, asphalt pavement was removed to prevent illegal parking from occurring. The specified landscaping for this area was grass seeding. However, this area sees significant pedestrians traffic, and as such, grass was not established in the fall of 2011. The contractor will re-seed the area in the spring of 2011, while providing temporary fencing to keep pedestrians from walking during the initial germination period.

Further Action Needed: For all future projects, the use of sod versus seeding will be examined during the design phase. For high pedestrian trafficked areas, sod will be specified, and vice versa for seeding.

Item #3: Paving Quality Control

- 3A. Top Course Paving Replacement.** After the top course paving was complete in the parking lot, it was discovered that there was an area of paving that was not properly paved, leaving behind ridges and bumps. The contractor was instructed to mill and repave this area of deficient construction. The contractor complied, and the area was repaved in the fall of 2011.

Item #4: Unforeseen Conditions

- 4A. Asphalt Thickness.** During excavation, it was determined that existing asphalt (specified to be milled to a depth of 2" and repaved) was only 2" thick in some spots, preventing milling from occurring. In these areas, additional asphalt binder was needed. A change order to the contractor's contract is being processed for the amount of \$2,796.20 for the additional asphalt.

Further Action Needed: On all future parking lot projects, the asphalt thickness of the existing parking lot will be verified during the initial site investigation stages of the parking lot, and the thickness of asphalt replacement (full depth or 2") will be determined during the design phase.

Item #5: Public Outreach

- 5A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was taking place.

Further Action Needed: The Save the Rain website will continue to serve as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$407,000
Change Order Total (as of 12/31/11)	\$3,372.20
Total Project Cost (as of 12/31/11)	\$410,372.20
Total CSO Reduction	1,332,000 gallons
Cost per CSO Reduction	\$0.31 per gallon

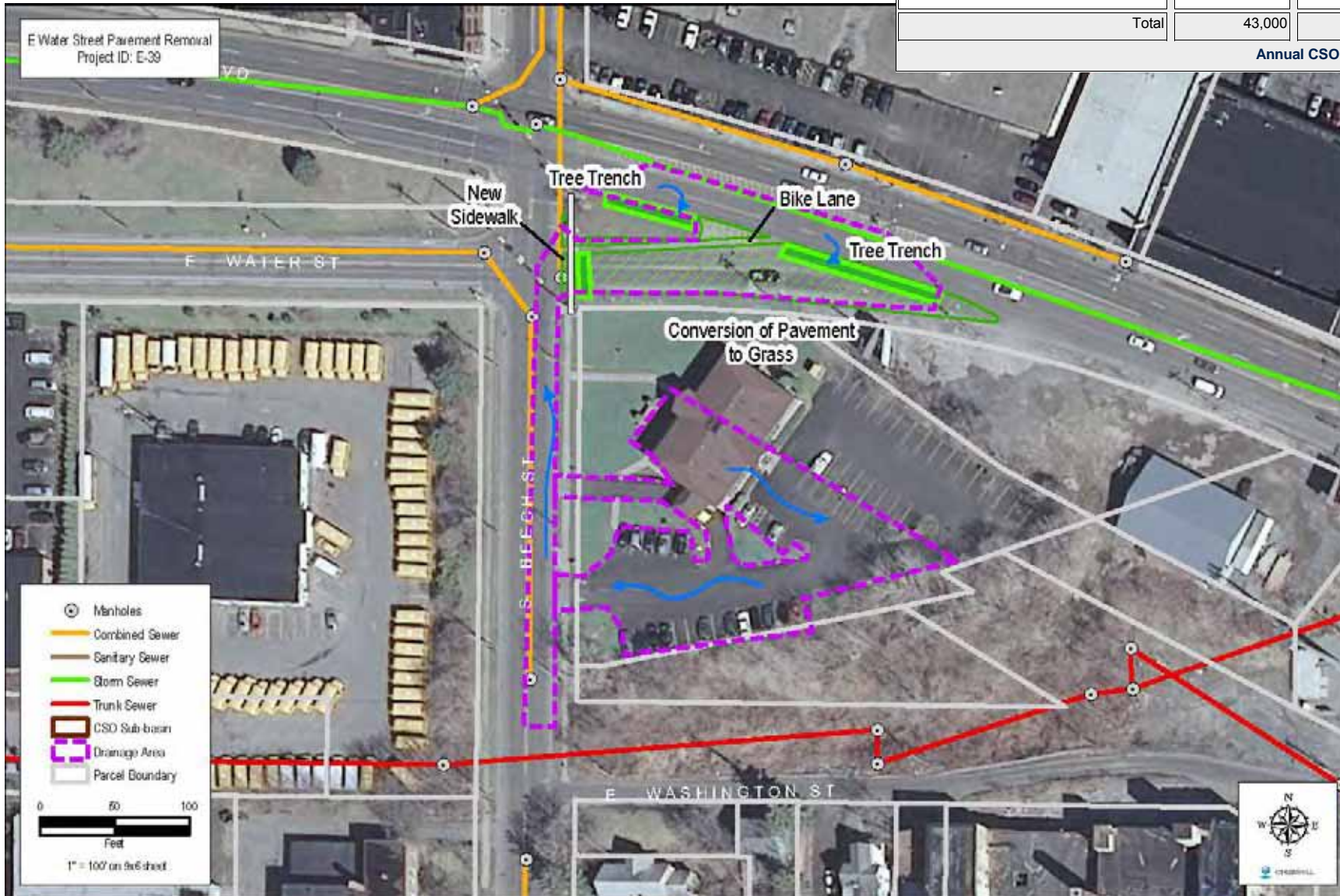


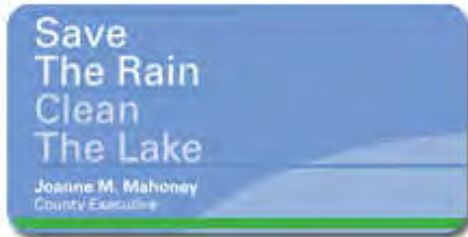
Project ID/Name: E-39 East Water Street Pavement Removal

Proj Address: Intersection of S Beech and E Water at Erie Blvd.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	36,000	2,000	637,000
Pavement Removal	7,000	7,000	131,000
Total	43,000	9,000	768,000
Annual CSO Reduction (gal)			545,280





FACT SHEET

East Water Street Pavement Removal

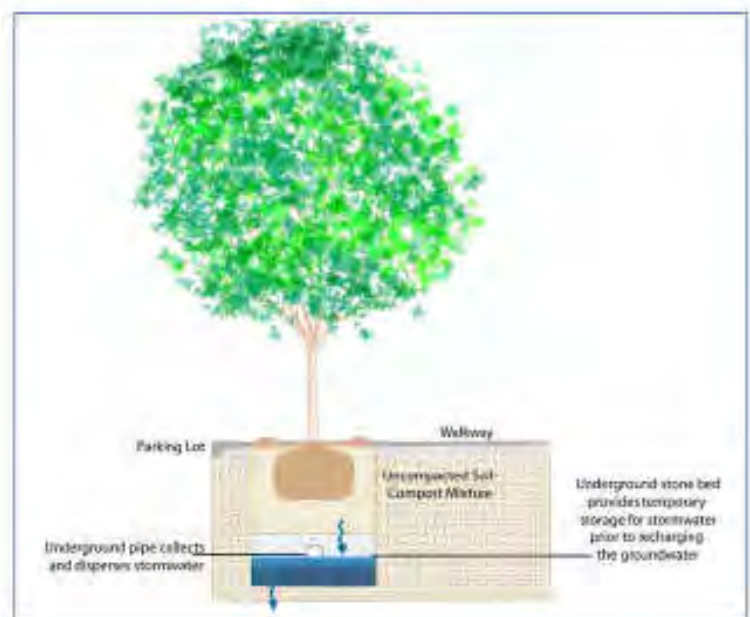
Project Description: The East Water Street Project is one of the largest pavement removal projects thus far in the Save the Rain program. Pavement removal will take place at the intersection of E. Water Street and Erie Boulevard. The design features installation of an 8-foot wide bike lane and an enhanced landscaped area on Water Street. Furthermore, tree trenches will be installed along Erie Boulevard and S. Beech Street to capture runoff from the street. Not only will the tree trench on S. Beech Street capture runoff from the street itself, but it will also capture runoff from adjacent areas that flow into this direction, making this project very cost efficient.

Nearly 7,500 square feet of pavement will be converted to pervious space as part of this project. This, in conjunction with the street runoff capture, will lead to an annual stormwater capture of 768,000 gallons.

Project:	E. Water Street Pavement Removal
Project Owner:	City of Syracuse
Project Location:	East Water St. & Erie Blvd.
Sewershed:	Clinton\Lower MIS
GI Technology:	Tree Trench
Capture Area:	43,000 sq. ft.
Run-off Reduction:	768,000 gal/yr
Year Completed:	TBD
Construction Cost:	\$120,000 (est.)
Bid Date:	10/25/11
Primary Contractor:	Slate Hill Construction



Aerial Photograph of Area of East Water St. Pavement Removal Before Construction



Schematic of Tree Trench and Subsurface Infiltration Bed



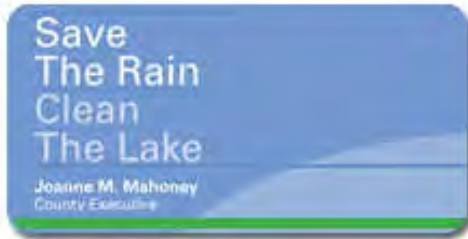
Project ID/Name: E-42 County Board of Election Building

Proj Address: 1000 Erie Blvd W & Liberty St

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Stormwater Planter - Raised	4,000	1,000	78,000
Stormwater Planter - Sidewalk	1,000	000	18,000
Stormwater Planter - Sidewalk	1,000	000	18,000
Total	6,000	1,000	114,000
Annual CSO Reduction (gal)			80,940





FACT SHEET **County Board of Elections** **Building**

Project Description:

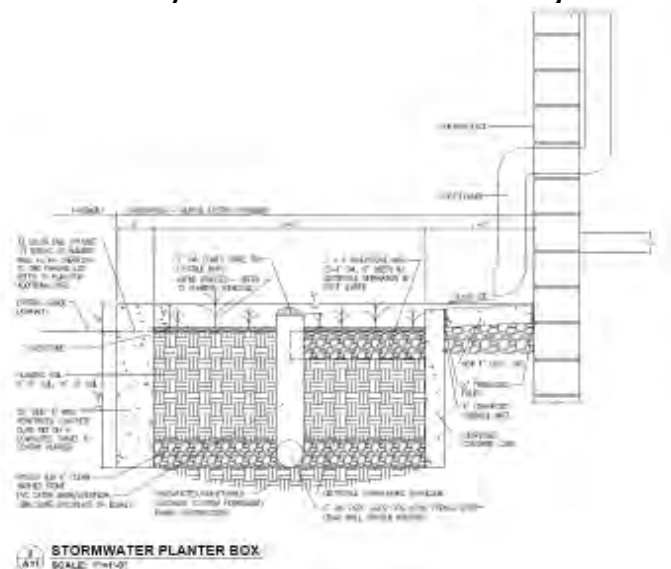
The County Board of Elections Building Project is a green project that is outside of the combined sewershed districts of the Amended Consent Judgement. This project is being done voluntarily by Onondaga County as part of the expansion of the Save the Rain campaign countywide. This project consists of re-routing roof leaders to direct stormwater from the roof into planting beds and planter boxes between the building and the parking lot of the property.

These planter boxes and planting beds will be located on the south and east sides of the building where the roof leaders will be draining. Additionally, a rain barrel will be installed to capture supplemental stormwater from the roof of the building to water the plants in the planting beds and planter boxes during dry periods of the year. In total, this project captures 114,000 gallons of stormwater annually.

Project:	County Board of Elections Building
Project Owner:	Onondaga County
Project Location:	1000 Erie Blvd. West
Sewershed:	N/A
GI Technology:	Stormwater Planter Boxes
Capture Area:	6,000 sq. ft.
Run-off Reduction:	114,000 gallons
Year Completed:	2011
Construction Cost:	\$0
Bid Date:	N/A
Prime Contractor:	County Facilities



Stormwater Planter Box to be Installed at the County Board of Elections Building



Stormwater Planter Box Detail

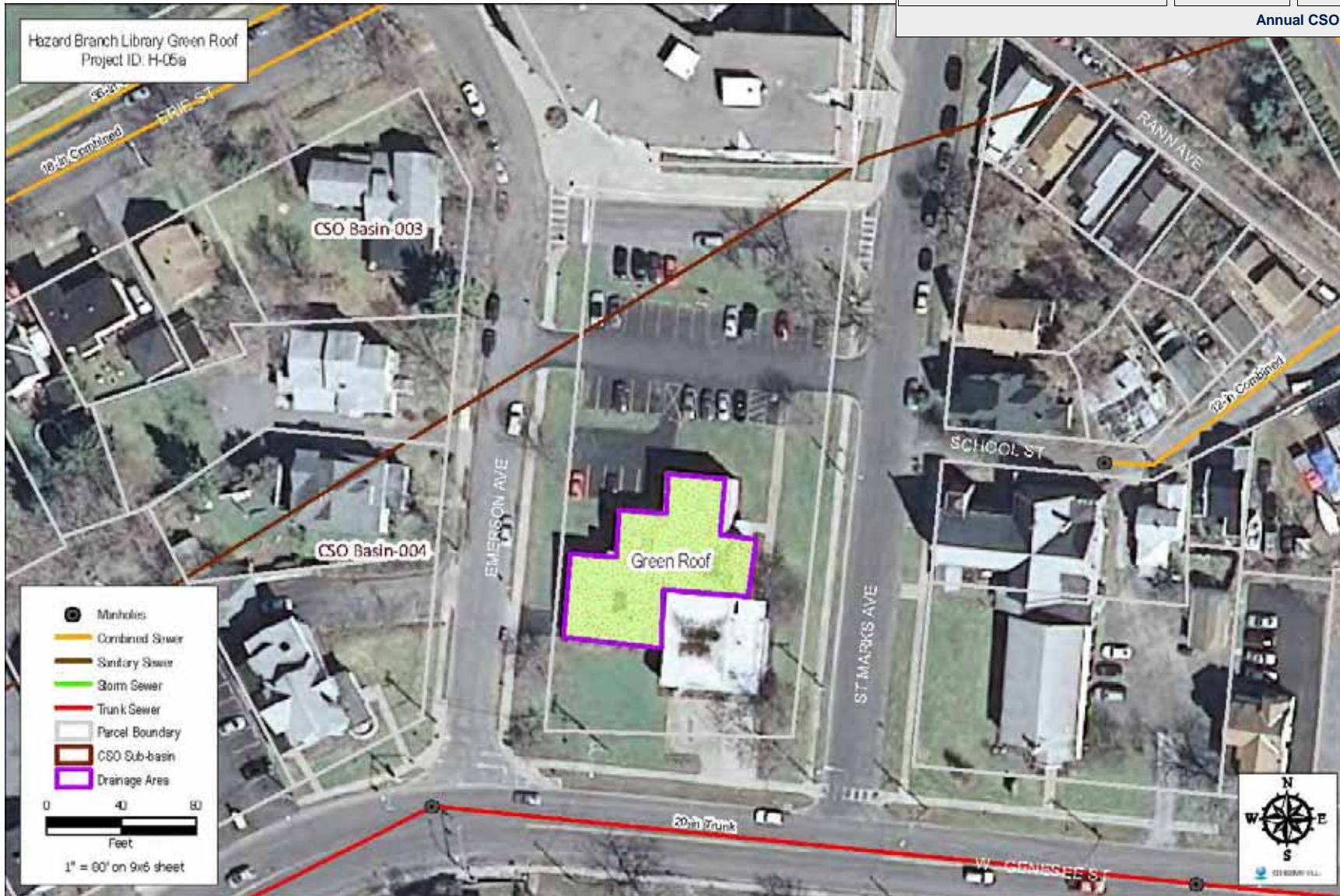


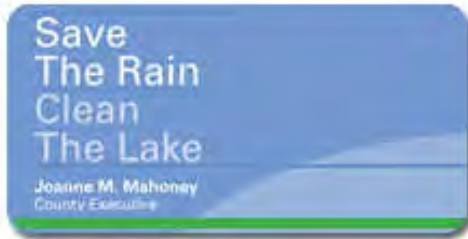
Project ID/Name: H-05 Green Roof at Hazard Branch Library

Proj Address: 1620 West Genesee St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	5,000	5,000	88,000
Total	5,000	5,000	88,000
Annual CSO Reduction (gal)			62,480





FACT SHEET

Hazard Library Green Roof

Project Description: This project involves a green roof installation at the Hazard Branch Library. Located at the intersection of W. Genesee Street and St. Mary's Avenue, the Hazard Branch Library has over 100 years of library service to Syracuse's West Side.

The proposed stormwater retrofit project will install a vegetated roof system on a large portion of the existing library rooftop. The green roof will feature plantings in a lightweight growing medium on top of a waterproof membrane, designed to capture stormwater, irrigate the plantings, and allow excess stormwater to evapotranspire. The membrane for the roof is currently in place, with plantings of the sedum turf planned for this fall.

Project:	Hazard Library Green Roof
Project Owner:	Onondaga County
Project Location:	1620 West Genesee St.
Sewershed:	Harbor Brook
GI Technology:	Green Roof
Capture Area:	5,000 sq. ft.
Run-off Reduction:	88,000 gal/yr
Year Completed:	2011
Construction Cost:	\$92,000 (conceptual)
Bid Date:	6/2/11
Prime Contractor:	J&B Installations

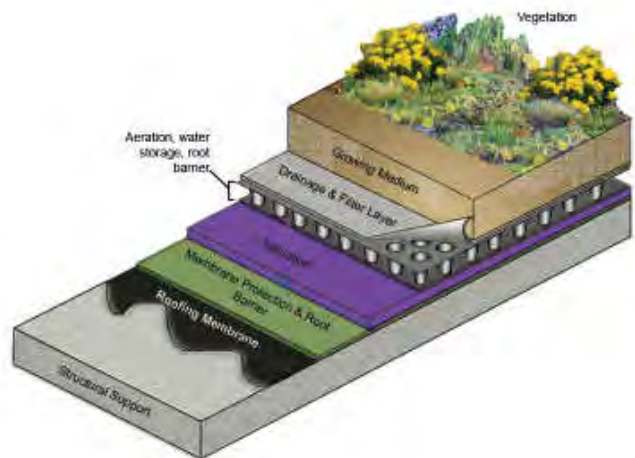


Diagram of Green Roof Implementation



Existing Conditions



Proposed Roof Layout



Project ID/Name: H-08 Road Recon. Project No. 8: Geddes Street

Proj Address: 300-500 blocks S. Geddes Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	47,055	10,220	828,725
Total	47,055	10,220	828,725





FACT SHEET

Geddes Street Road Reconstruction

Project Description: The Geddes Street Road Reconstruction Project will be coordinated with needed public roadway improvements along South Geddes Street, which borders the George Fowler High School parking lot and sports fields in addition to other parcels.

This project features the design and installation of vegetated curb extensions adjacent to the sidewalk on the western side of the 300-500 blocks of South Geddes Street. Vegetated curb extensions with subsurface infiltration trenches will capture and infiltrate storm water runoff from the right of way, preventing approximately 523,000 gallons per year from entering the combined sewer system.

Project:	Geddes Street
GI Technology:	Bioretention
Project Location:	300-500 Blocks of S. Geddes St.
Project Owner:	City of Syracuse
Sewer shed:	Harbor Brook
Capture Area:	29,700 Square Feet
Run-off Reduction:	523,000 Gallons/yr
Year Completed:	2011
Construction Cost:	\$203,000 (bid)
Bid Date:	6/9/11
Prime Contractor:	John R. Dudley Construction



Existing Conditions



Example of a Vegetated Curb Extension

Green Infrastructure Project Completion Report

Project H-08: Geddes Street Road Reconstruction

DATE: January 2012

Contractor: John R. Dudley Construction

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Site Details and Specifications

- 1A. Granite Curb Damage.** After completing construction on the project, the curb was damaged along the curved portion of the alignment, between Otisco and Gifford in early October. It is believed that this damage is caused by school or Centro buses turning from Otisco onto Geddes and striking the curb. The original damage was repaired via a modification to the Contractor's contract. Further damage occurred adjacent to the repaired area. This damaged curbing will be repaired in the spring of 2012.

Delineators will be installed, and pavement striped along the west shoulder of Geddes Street by City DPW in the spring of 2012 to help prevent further damage from occurring.

Further Action Needed: Where applicable, the granite curbing detail showing the concrete backing will be revised for future projects to show more concrete backing to provide support in the event the curb is struck by a vehicle.

Item #2: Topographic Survey

- 2A. Manhole Not Shown to Scale.** The granite curbing along the curb extension and swale was found to be in conflict with one electrical manhole structure on Geddes Street, for which the lid was not shown to scale. In addition, the subsurface structure was much larger than anticipated. A design change was initiated to move the location of a curb stormwater inlet to the same location as the manhole. In this manner, runoff is able to freely flow over the manhole and into the swale.

Further Action Needed: The surveyor has been notified of this discrepancy and the scope of work was revised to require all surface features shown exactly to scale. In addition, designers will be more cognizant and conservative regarding subsurface size of manhole structures.

Item #3: Trees and Plantings

- 3A. Planting Progress.** There were no trees, shrubs or plugs on this project, however, the grass was planted and established along the length of the swale.

Further Action Needed: The contractor will return to the site to complete punch list items in the spring of 2012. This includes adding soil where settling has taken place and replanting some of the grass areas that did not establish in 2011.

Item #4: Subsurface Utility Location

- 4A. Electrical Duct Bank.** During excavation, a marked electrical duct bank line was discovered approximately 18 inches west of its marked location. This caused a shift in the swale and subsurface materials so that the

duct bank was not disturbed. Further, the shift in the swale caused the trench to be moved closer to the existing curb resulting in more significant disturbance of this curb. The location of the duct bank also caused green infrastructure (GI) piping and structures to be shifted and changed to accommodate available space. As a result several small changes in trench and piping alignment were required so the project could proceed. A change order to the contractor's contract is being processed as of the date of this report.

Further Action Needed. More detailed gas and electric utility mapping (including future GIS format) is now being obtained for green project sites. Utility attributes from this mapping will be conservatively used to estimate subsurface size of electric utilities and avoid conflicts as much as possible.

Item #5: Public Outreach

- 5A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$203,274
Change Order Total as of 12/31/11	\$27,661.31
Total Project Cost as of 12/31/11	\$230,935.31
Total CSO Reduction	371,000 gallons
Cost per CSO Reduction	\$0.62 per gallon



Parcel Owner: City of Syracuse
Parks

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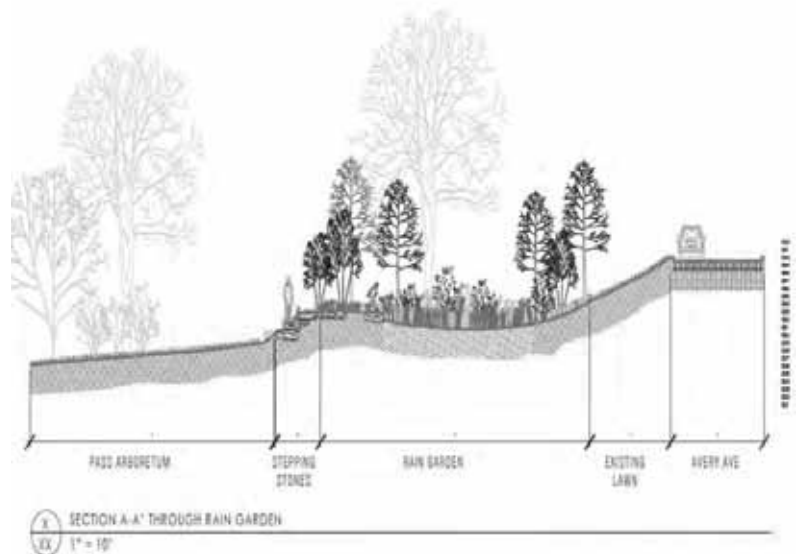
FACT SHEET

Park Greening Along Avery Avenue

Project Description: The Avery Avenue Pass Arboretum Project is one of many collaborations between Onondaga County and the City of Syracuse Parks Department. The project will consist of the installation of 11,000 square feet of rain gardens along the east side (Avery Ave.) of the park. The location is an ideal spot for education opportunities with walkways and pedestrian traffic woven into the footprint.

This project was designed with consideration for historic preservation and was approved by the City of Syracuse Landmark Preservation Board. The new plantings in Pass Arboretum were chosen according to the vegetation historically found in this park.

Project:	Park Greening along Avery Ave. (Pass Arboretum)
Project Owner:	Syracuse Parks Dept.
Project Location:	Avery Ave. between Tompkins St. & Bryant St.
Sewershed:	Harbor Brook
GI Technology:	Rain Gardens
Capture Area:	39,000 sq. ft.
Run-off Reduction:	746,000 gal/yr
Year Completed:	2011
Construction Cost:	\$316,420
Prime Contractor:	Economy Paving



Crossection of the site at Avery Avenue



Site of the rain garden before construction



Rendering of the rain garden after completion

Renderings prepared by Viridian Landscape Studio

Green Infrastructure Project Status Report

Project H-11: Avery Avenue at Pass Arboretum

DATE: January 2012

Contractor: Economy Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Trees and Plantings

- 1A. Planting Progress.** No plantings occurred in the fall of 2011 due to exceeding the planting schedule presented in the specifications. This would result in the voiding of any of the tree and planting warranties.

Further Action Needed: The contractor installed S3 planting soil in all of the bioretention basins in the fall of 2011. S1 planting soil and all trees and plantings will be installed in the spring of 2012.

Item #2: Connection to Sewer Mains

- 2A. City DPW Witnessing.** The City DPW was informed of the connections to the combined sewer mains after the connections occurred. As stated in the contractor's City Street-cut permit, the contractor must notify City DPW at least 48 hours in advance of connecting to the sewer mains. Photos of the connections were supplied to City DPW after the fact.

Further Action Needed: On all future green infrastructure projects, a note will be added to the Contract Drawings stating that the contractor must contact City DPW at least 48 hours in advance and the City DPW must witness the connection to the sewer mains. Further, this requirement will be included in the pre-construction meeting agenda for emphasis.

Item #3: Unforeseen Conditions

- 3A. Locations of Structures.** During construction, it was noted that the location of a new manhole shown on the Contract Documents was in the right-of-way between the sidewalk and the curb. However, the Contractor found this location to be lacking adequate space for the installation of the manhole due to a conflict with a subsurface gas utility. Furthermore, the adjacent areas were found to be insufficient for installing the manhole due to the steepness of the slope and the location of an existing fence line. The contractor relocated the manhole much further into the Pass Arboretum site without notifying the engineer.

Further Action Needed: The contractor was advised that the engineer is to be notified in all cases where field conditions require redesign and the relocation of structures. On future green infrastructure projects, the location of stormwater structures will be field verified (as best as possible) for existing utilities or other conflicts prior to construction.

- 3B. Fence Repair.** Following the relocation of the manhole inside the fence line it was noted that adequate coverage of the pipeline was not provided and encroached on the bottom of the park fence. As a result, it was determined that adjusting the elevation of the fence line would be the best course of action to attain minimum coverage on the piping and allow the fence to pass clearly over the top of the pipe. To adjust

the elevation of the fence approximately 20 sections of the fence will be removed to allow grading to take place. Fencing will be reinstalled once the grading is complete.

Further Action Needed: Work related to the fence and grading will take place the spring of 2012 when the remaining site work is completed. The contractor is in the process of preparing contract modification for this work at the time as this memorandum is being prepared.

Future green infrastructure projects in close proximity an existing fence line will be field verified prior to construction, and any fence needing to be removed and replaced will be marked as such on the Contract Drawings.

Item #4: Public Outreach

- 4A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications, and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

- 4B. Tipp Hill Neighborhood Association.** Due to the fact that this site is used by many residents in the surrounding areas, additional outreach took place through the Tipp Hill Neighborhood Association. The project was presented at a monthly meeting, and updates were provided during construction.

Further Action Needed: For the continuation of this project and future projects within the Tipp Hill Neighborhood, the association will be updated on a regular basis. Any feedback received will be considered and incorporated into future green infrastructure projects as determined to be necessary.

- 4C. Syracuse New Times.** The Syracuse New Times is distributed in the immediate vicinity of this project. As a result, an article was printed in the paper informing the public of the ongoing project. A concept of the project was also provided.

Further Action Needed: For future projects in areas used by many pedestrians, the New Times will be contacted so that additional information can be provided to the public.

Project Metrics Summary

Bid Price	\$316,420
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$316,420
Total CSO Reduction	530,000 gallons
Cost per CSO Reduction	\$0.60 per gallon



Project ID/Name: H-13 Wilbur Avenue Zoo Entrance Enhancement

Proj Address: S Wilbur Ave and Coleridge Ave

Parcel Owner: City of Syracuse

Green Technology

Bioretention

Impervious
Area (SF)

39,000

Green Infrastructure
Area (SF or Gal)

12,000

Annual Capture
(gal)

680,000

Total

39,000

12,000

680,000

Annual CSO Reduction (gal)

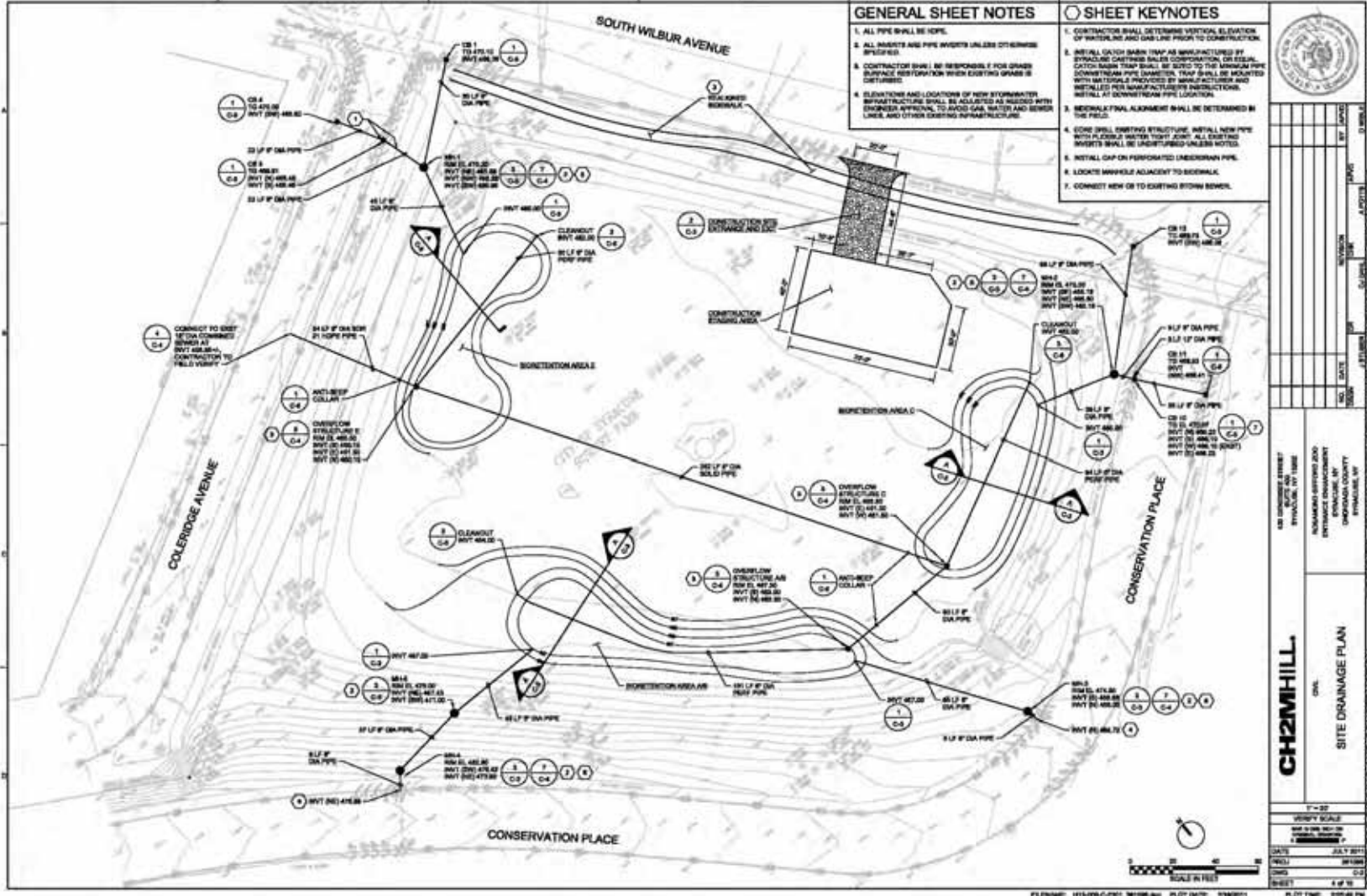
482,800

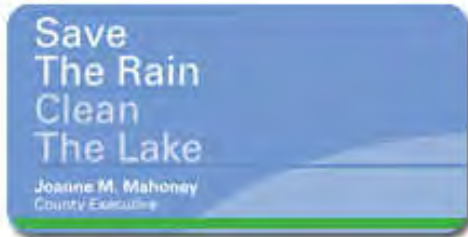
GENERAL SHEET NOTES

1. ALL PIPE SHALL BE NYE.
2. ALL INVERTS AND PIPE INVERTS UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR GRADE SURFACE RESTORATION WHEN EXISTING GRADE IS DISTURBED.
4. ELEVATIONS AND LOCATIONS OF NEW STORMWATER INFRASTRUCTURE SHALL BE ADJUSTED AS NEEDED WITH ENGINEER APPROVAL, TO AVOID GAS, WATER AND SEWER LINES, AND OTHER EXISTING INFRASTRUCTURE.

SHEET KEYNOTES

1. CONTRACTOR SHALL DETERMINE VERTICAL ELEVATION OF EXISTING AND GROUND LINE PRIOR TO CONSTRUCTION.
2. INITIAL GROUND SHALL BE RECONSTRUCTED BY STRUCTURAL CAST-IN-PLACE CONCRETE, OR EQUAL, CATCH BASIN TRAP SHALL BE MOUNTED TO THE DOWNSTREAM PIPE (DIAMETER). TRAP SHALL BE MOUNTED WITH MATERIALS PROVIDED BY MANUFACTURER AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS. INSTALL AT DOWNSTREAM PIPE LOCATION.
3. MEDIAN FINAL ALIGNMENT SHALL BE DETERMINED BY THE FIELD.
4. GROUND SHALL EXISTING STRUCTURE. INITIAL NEW PIPE WITH PLUMBING WATER TIGHT JOINT. ALL EXISTING SHEDS SHALL BE UNDISTURBED UNLESS NOTED.
5. INSTALL GCP ON PERFORATED UNDERGROUND PIPE.
6. LOCATE MANHOLE ADJACENT TO SIDEWALK.
7. CONNECT NEW OR TO EXISTING STORM SEWER.





Project:	Zoo Entrance
Project Owner:	Onondaga County
Project Location:	Rosamond Gifford Zoo
Sewershed:	Harbor Brook
GI Technology:	Rain Gardens, Porous Pavement
Capture Area:	39,000 square feet
Run-off Reduction:	680,000 gallons/yr
Year Completed:	2011
Construction Cost:	\$299,990
Prime Contractor:	Economy Paving

FACT SHEET

Wilbur Avenue

Zoo Entrance Enhancements

Project Description: The Rosamond Gifford Zoo Entrance Enhancement Project involves capturing stormwater runoff from numerous adjacent streets and piping that stormwater into rain garden applications in the park space located at the Zoo entrance on Wilbur Avenue. Stormwater will be captured from Conservation Place, S. Wilbur Avenue, and Coleridge Avenue as part of this project. The three rain gardens that will be constructed are connected hydraulically, allowing overflows from each rain garden to be connected to the other rain gardens and eventually the combined sewer system.

The rain gardens will be planted with numerous types of plant species that will beautify the Zoo entrance, promoting further pedestrian traffic in this area. At the same time, these plants will allow captured rainwater to be infiltrated and evaporated, preventing it from entering the combined sewer system. A unique aspect of this project is that existing infrastructure (i.e. catch basins) will be tied in to the site and utilized for capturing rainwater. This will reduce construction disruptions and allows the project to be more cost efficient.



Aerial Photograph of Zoo Entrance Before Construction



Conceptual Rendering of Zoo Entrance Enhancements Green Infrastructure Developments

Green Infrastructure Project Status Report

Project H-13: Wilbur Avenue Zoo Entrance Enhancements

DATE: January 2012

Contractor: Economy Paving

Presented herein for the noted site is a summary of issues/features related to the design and construction, its current status and project metrics.

Item #1: Trees and Plantings

- 1A. Planting Progress.** No plantings occurred in the fall of 2011 due to the fact that doing so would result in plantings outside of the specified planting seasons. This would result in the voiding of any of the tree and planting warranties.

Further Action Needed: The contractor installed S3 planting soil in all of the bioretention basins in the fall of 2011. S1 planting soil and all trees and plantings will be installed in the spring of 2012.

Item #2: Connections to Sewer Mains

- 2A. City DPW Witnessing.** The City DPW was informed of the connections to the combined sewer mains after the connections occurred. As stated in the contractor's City Street-cut permit, the contractor must notify City DPW at least 48 hours in advance of connecting to the sewer mains. Photos of the connections were supplied to City DPW after the fact.

Further Action Needed: Although noted in 2011 preconstruction meeting agendas/minutes, a note will also be added to the Contract Drawings stating that the contractor must contact City DPW at least 48 hours in advance and the City DPW must witness the connection to the sewer mains.

Item #3: Unforeseen Conditions

- 3A. Locations of Structures.** During construction, it was noted that the location of a new catch basin was in conflict with an existing water main behind the curb on Coleridge Ave. As a result, the new catch basin was removed from the contract, and a stormwater piping was reconfigured using an existing catch basin (across the street) immediately to the east of the previous new catch basin. As a result, a larger road cut was necessary. This resulted in an additional cost of \$3,158.11 for time, material and equipment.

Item #4: Site Restoration

- 4A. Restoration.** During excavation it became evident that the area had been used as a dumping area in the past due to multiple glass bottles and containers being found. As excavation took place some of these bottles and containers were broken and fragments of glass were found across the site. After restoration of the site was complete for the winter of 2011/2012, the contractor was asked to remove the glass shards as part of their winter shutdown punch list.

Item #5: Public Outreach

- 5A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project plans and specifications and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

- 5B. Tipp Hill Neighborhood Association.** Due to the fact that this site is used by many residents in the surrounding areas, additional outreach took place through the Tipp Hill Neighborhood Association. The project was presented at a monthly meeting, and updates were provided during construction.

Further Action Needed: For the continuation of this project and future projects within the Tipp Hill Neighborhood, the association will be updated on a regular basis. Any feedback received will be considered and incorporated into future green infrastructure projects as determined to be necessary.

Project Metrics Summary

Bid Price	\$299,990
Change Order Total (as of 12/31/11)	\$3,158.11
Total Project Cost (as of 12/31/11)	\$303,148.11
Total CSO Reduction	483,000 gallons
Cost per CSO Reduction	\$0.63 per gallon

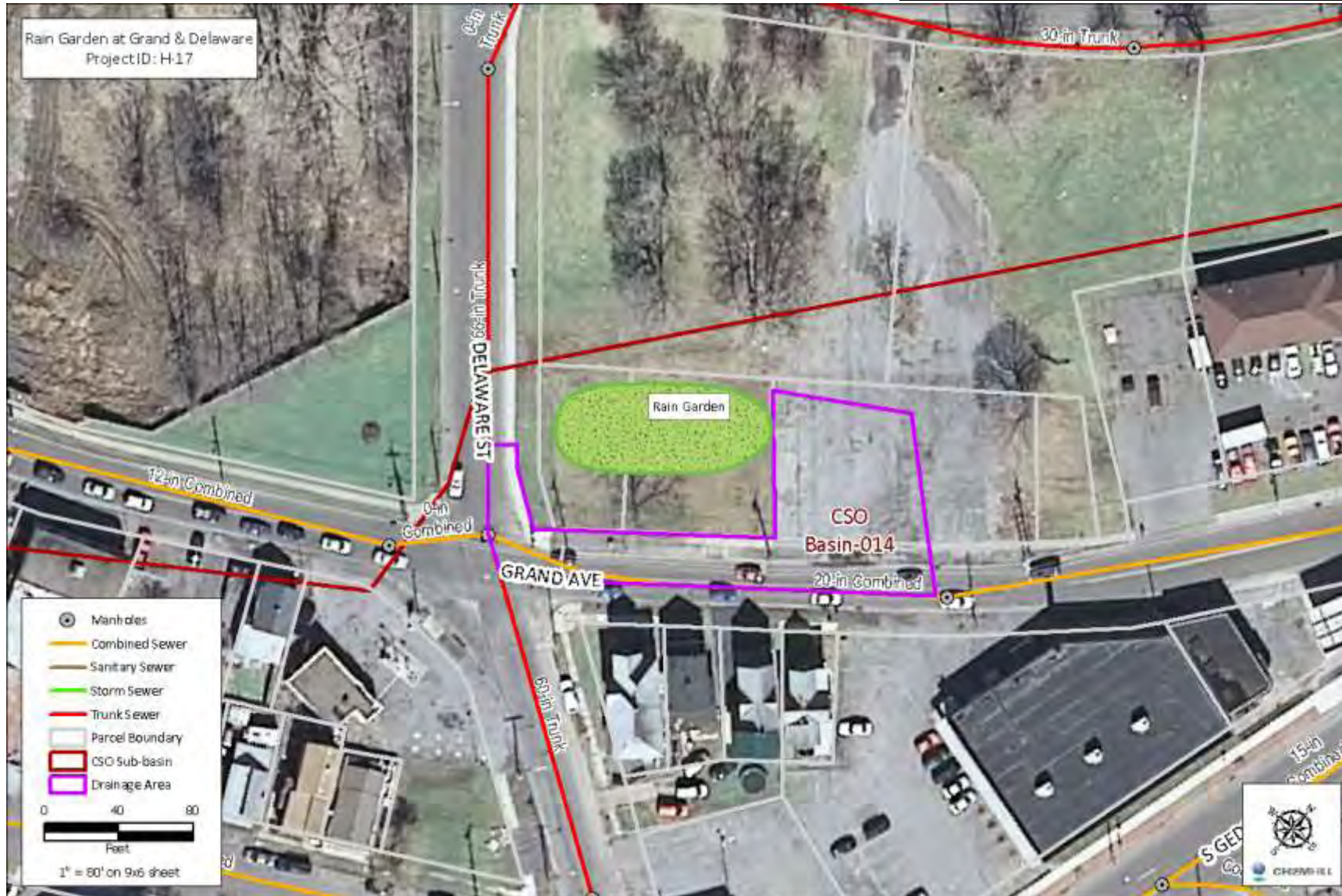


Project ID/Name: H-17 Rain Garden at Grand & Delaware

Proj Address: Grand Avenue & Delaware Street

Parcel Owner:

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	12,877	4,727	226,787
Total	12,877	4,727	226,787



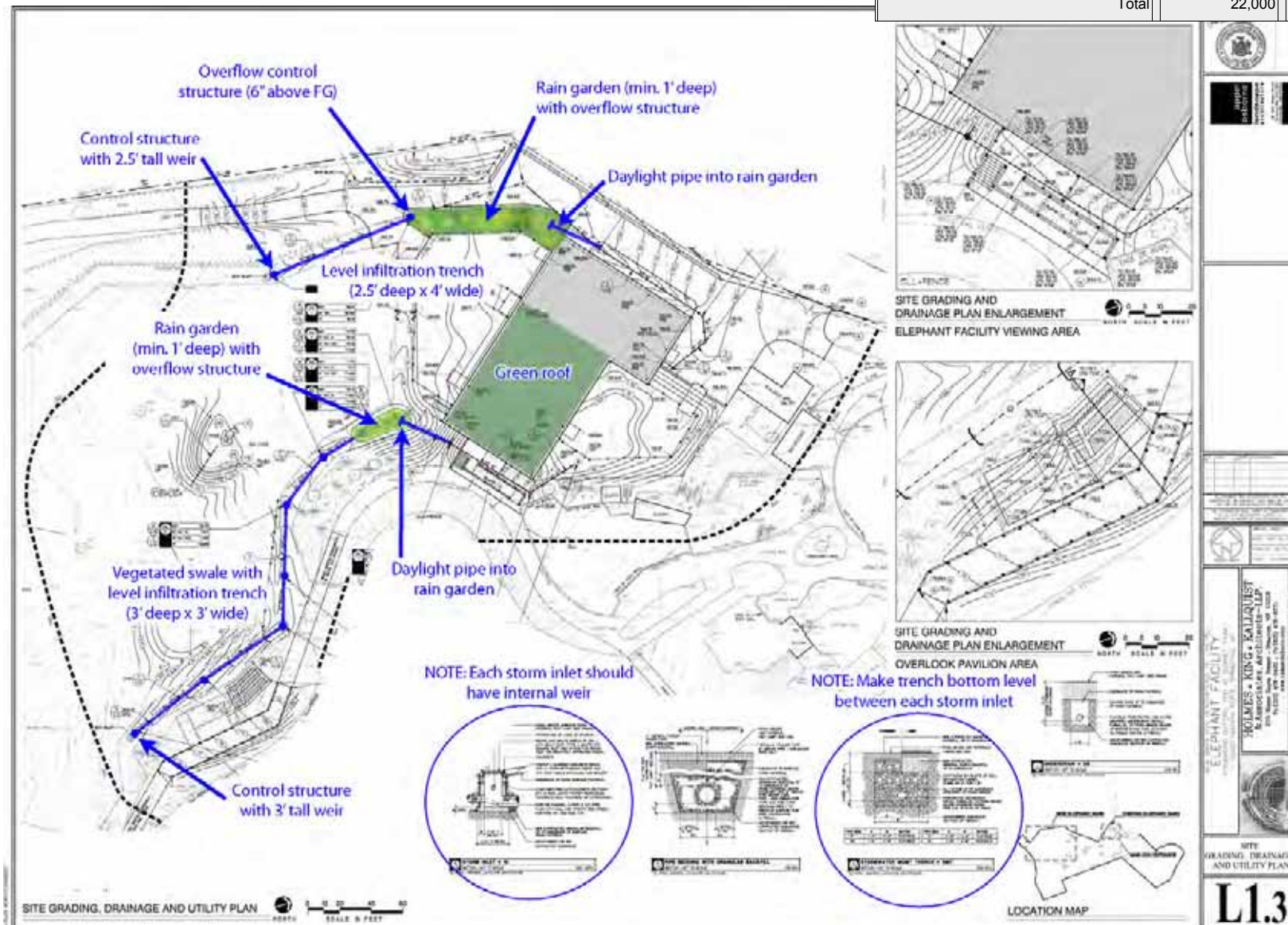


Project ID/Name: H-19 Rosamond Gifford Zoo: Elephant Exhibit

Proj Address: Elephant and Primate exhibit renovation

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	15,500	2,000	273,000
Green Roof	6,500	6,500	114,000
Total	22,000	8,500	387,000





FACT SHEET

Green Roof at Elephant Exhibit Rosamond Gifford Zoo

Project Description: A green roof was completed in May 2011 at the new, larger elephant barn at Rosamond Gifford Zoo. This vegetative roof will absorb stormwater and prevent 114,000 gallons of runoff from entering the sewer annually.

The green roof was part of a phased 'green' renovation effort at the Zoo. In 2010 'green' enhancements were completed in the Courtyard with the connection of downspouts from the atrium building to a rain barrel and installation of porous pavement in the walkway surrounding the new primate exhibit.

The elephant exhibit redevelopment included construction of the elephant barn and new spectator pavilion. In addition, the project included refurbishing of an existing four-acre elephant yard with rain gardens and open green space applications in the footprint.



Examples of Green Roof Implementation

Project:	Green Roof at the Elephant Exhibit
GI Technology:	Green Roof
Project Location:	Rosamond Gifford Zoo
Project Owner:	Onondaga County
Sewershed:	Harbor Brook
Capture Area:	6,000 square feet
Run-off Reduction:	114,000 gallons per year
Year Completed:	2011
Construction Cost:	\$183,900
Primary Contractor:	Bette & Cring



Construction of Green Roof on Elephant Barn

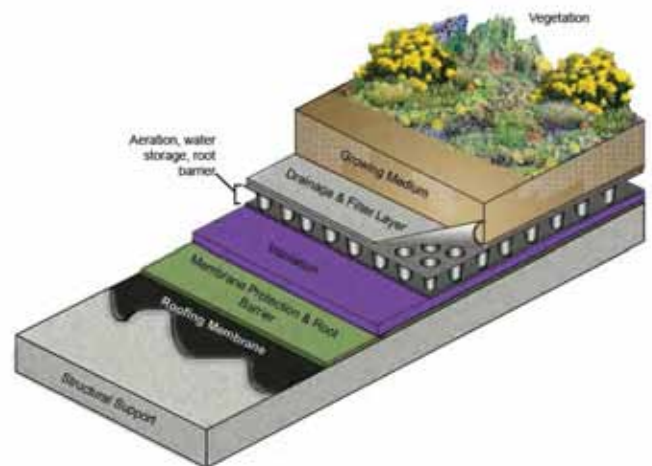


Diagram of Green Roof Implementation



Project ID/Name: H-24 GIF#031 ARC of Onondaga County

Proj Address: 401 Lowell Ave.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	17,000	8,000	299,000
Total	17,000	8,000	299,000
Annual CSO Reduction (gal)			212,290





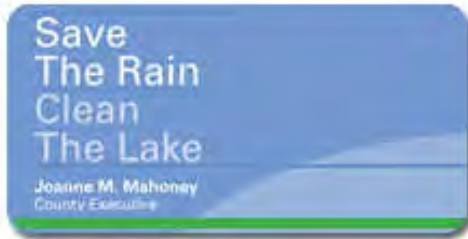
Project ID/Name: H-27 Greening the Grey at Harbor Brook Storage Facility

Proj Address: State Fair Blvd. and Rusin Ave (near Waite Ave)

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	9,000	1,000	155,000
Bioretention	8,000	6,000	136,000
Flexipave	1,000	1,000	14,000
Total	18,000	8,000	305,000
Annual CSO Reduction (gal)			216,550





FACT SHEET

Greening the Gray at Harbor Brook Storage

Project Description: The Greening the Gray at Harbor Brook Storage project consists of green separation and stormwater management practices to handle runoff not only from the site of the Harbor Brook Storage Facility, but also from the surrounding streets. This project is one of several greening of gray projects that Onondaga County is completing under the Save the Rain program.

This particular project consists of green separation, bioretention and porous pavement. A new utilities building will be constructed for the Harbor Brook Storage facility, and the roof leaders from this facility will be plumbed so that stormwater does not enter Harbor Brook, but instead enters into a bioretention area. Additionally, a bioretention area will be constructed at the intersection of Rusin Ave. and State Fair Blvd. to capture runoff from both streets. Furthermore, flexible porous pavement will be installed around the new storage tank to handle adjacent runoff. In total, the annual stormwater capture for this site is 305,000 gallons per year.

Project:	Greening the Gray at Harbor Brook Storage
Project Owner:	Onondaga County/City of Syracuse
Project Location:	State Fair Blvd. and Rusin Ave.
Sewershed:	N/A
GI Technology:	Green Separation, Bioretention, Porous Pavement
Capture Area:	18,000 sq. ft.
Run-off Reduction:	305,000 gal/yr
Year Contracted:	2011
Construction Cost:	TBD
Contractor:	TBD



Aerial Photograph of Harbor Brook Storage Prior to Construction of Storage Facility and Associated Green Work



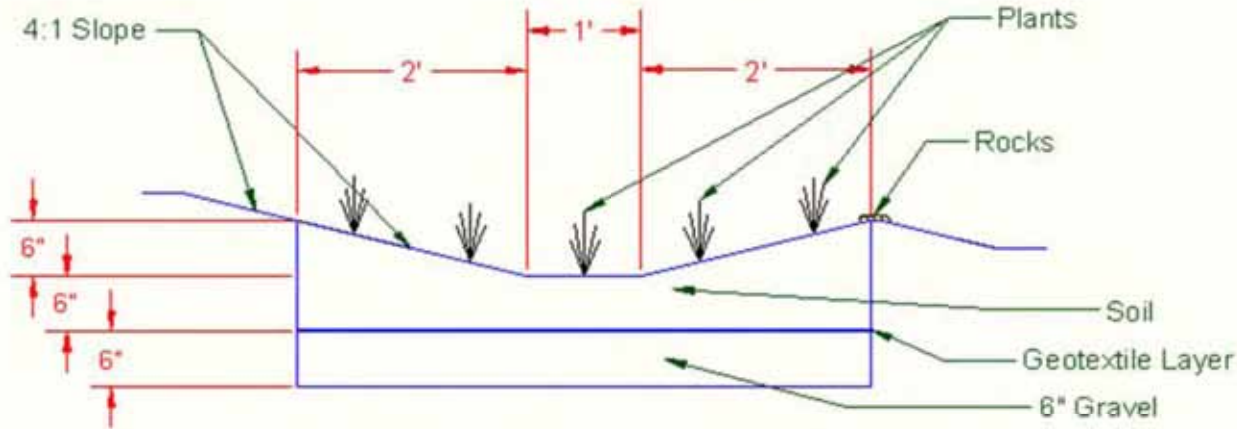
Project ID/Name: IH-04 Rain Garden at Syracuse Harbor

Proj Address: Van Rensselaer St

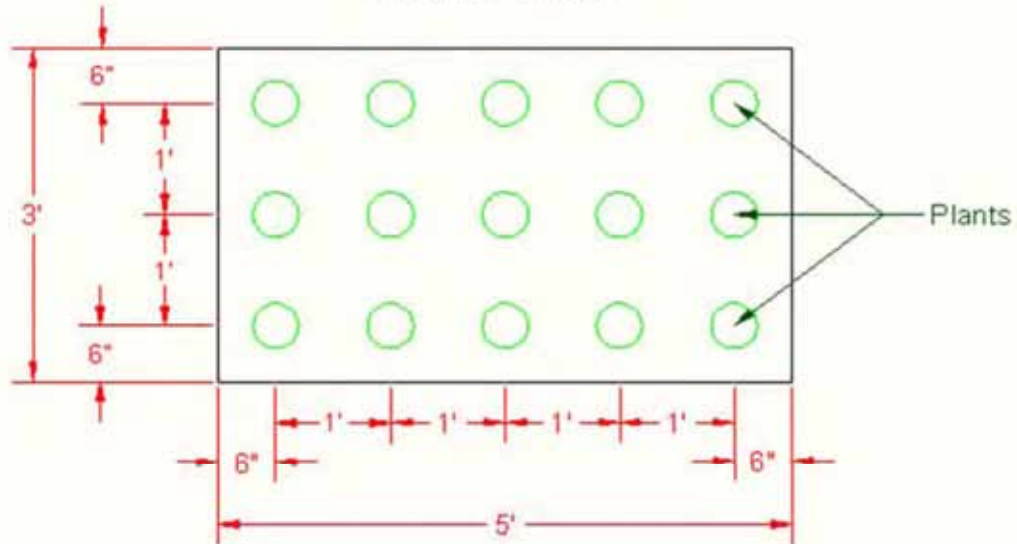
Parcel Owner: New York State

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	000		2,000
Total	0		2,000
Annual CSO Reduction (gal)			1,420

Cross Section View



Aerial View





Project ID/Name: M-23 Greening the Grey in Basin 044

Proj Address: 400-700 W Castle Street

Parcel Owner:

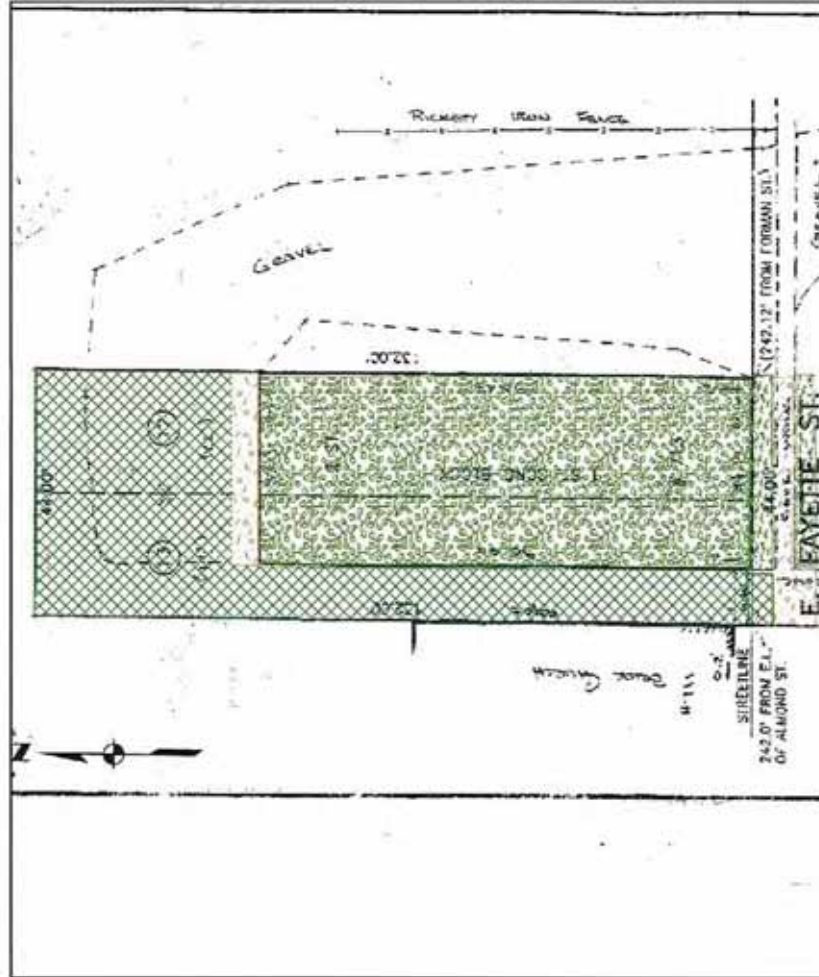




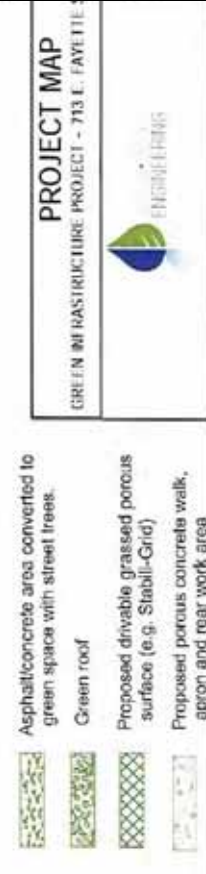
Project ID/Name: M-25 GIF#017 Create Public Art

Proj Address: 713 E. Fayette St

Parcel Owner: Private



Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	3,000	3,000	53,000
Porous Pavement Roadway	1,000	1,000	19,000
Porous Pavement Sidewalk	000	000	7,000
Pavement Removal	1,000	1,000	11,000
Total	5,000	5,000	90,000
Annual CSO Reduction (gal)			63,900



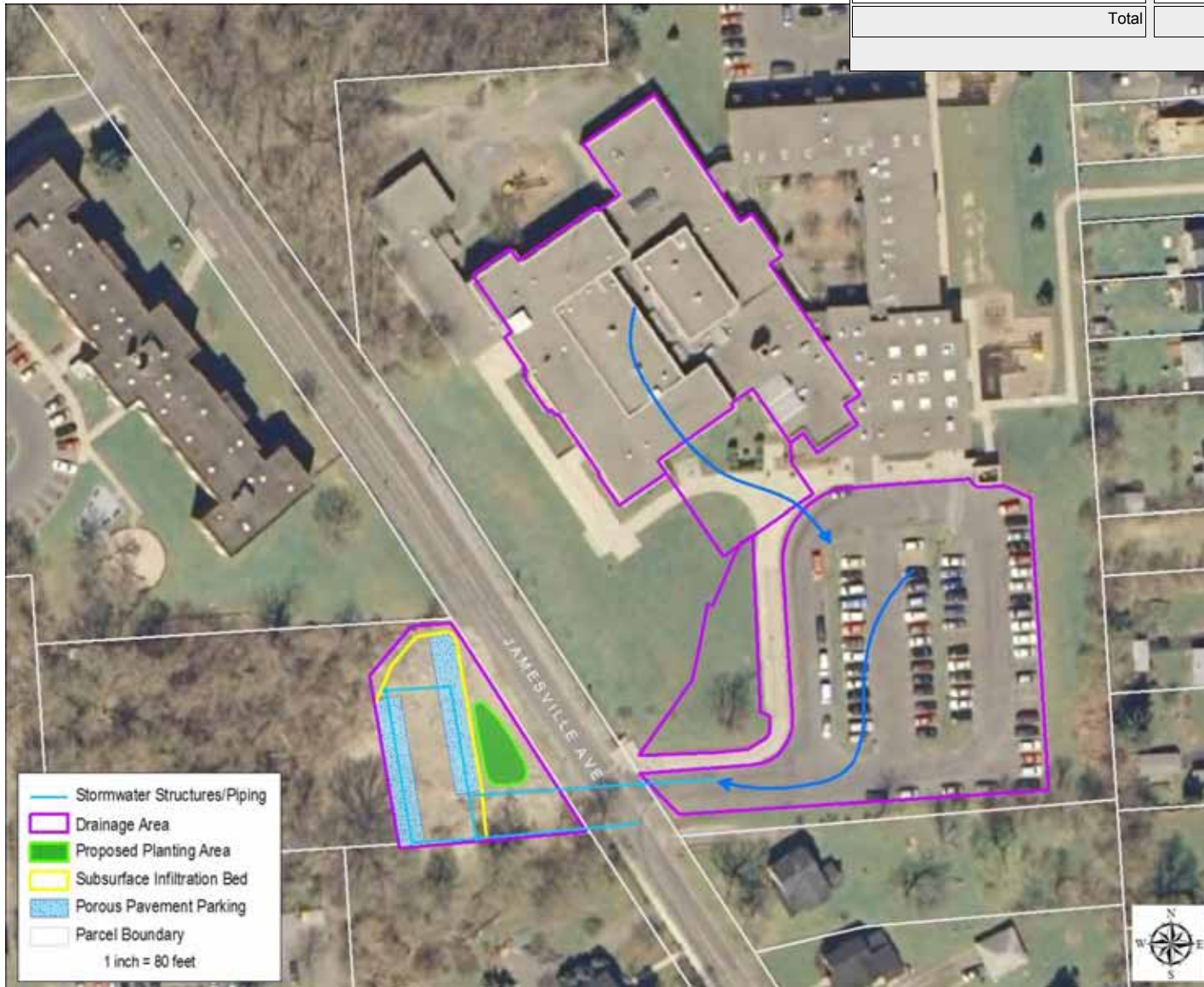


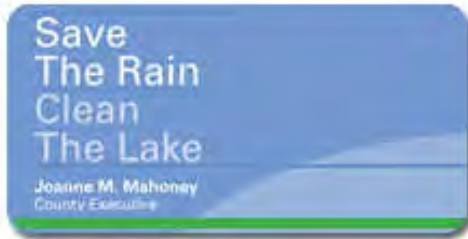
Project ID/Name: M-29 Hughes Magnet School Parking Lot

Proj Address: 745 -55 Jamesville Ave

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	40,000	4,000	752,000
Infiltration Bed	40,000	4,000	752,000
Total	80,000	8,000	1,504,000
Annual CSO Reduction (gal)			1,067,840





FACT SHEET

SCSD Hughes Magnet School Parking Lot

Project:	Hughes Magnet School
Project Owner:	Syracuse City School Dist.
Project Location:	370 Jamesville Ave
Sewershed:	Midland
GI Technology:	Porous Pavement, Infiltration Bed
Capture Area:	80,000 sq. ft.
Run-off Reduction:	1,504,000 gal/yr
Year Constructed:	2011
Construction Cost:	\$288,000
Prime Contractor:	ACTS II Construction

Project Description: The project at Hughes Magnet School involves the construction of a new parking lot that is able to capture stormwater runoff not only from the new construction, but also from the existing parking lot, school roof, and Jamesville Ave. This unique project is able to prevent approximately 1.5 million gallons of stormwater from entering the combined sewer system annually.

The new parking lot will consist of porous asphalt parking stalls and standard asphalt driving lanes. Beneath the entire parking lot is a subsurface infiltration bed that is sized to handle runoff from this large drainage area.

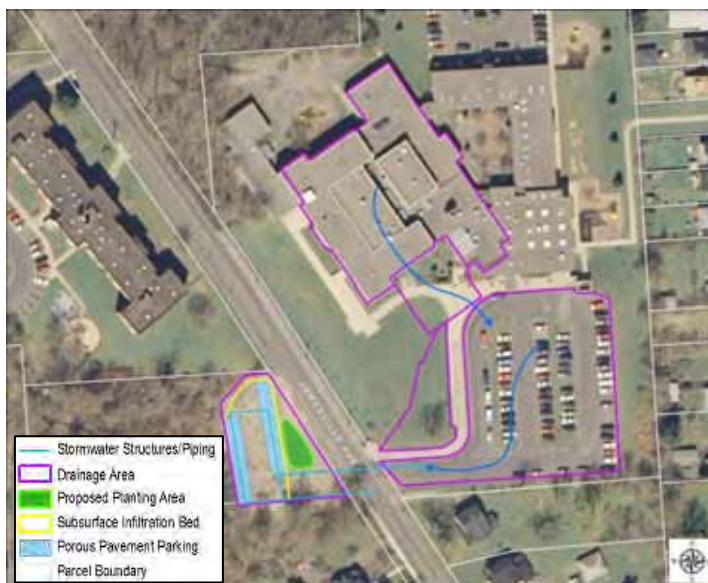
The existing parking lot and roof leader connections to the combined sewer system will be intercepted and re-plumbed into the subsurface infiltration bed in the new parking lot. Also included in this project is a small planting area between the new parking lot and Jamesville Ave. that will handle additional stormwater from surrounding areas.



Tributary Drainage Area



**Porous Parking Lot Location
before Construction**



Conceptual Rendering of Green Project Plans



Porous Lot - Construction Nearing Completion

Green Infrastructure Project Status Report

Project M-29: Hughes Magnet School Parking Lot

DATE: January 2012

Contractor: ACTS II Construction

Presented herein for the noted site is a summary of issues/features related to the design and construction of the project, its current status and project metrics.

Item #1: Stormwater and Site Details and Specifications

- 1A. Sidewalk Type.** Prior to construction, the City of Syracuse Dept. of Engineering commented that the contract drawings specified asphalt sidewalk in the area of existing asphalt sidewalk (replacement in-kind). However, City sidewalk ordinance, all sidewalk is to be concrete unless a variance is granted. A modification to the contractor's contract is being processed as of the date of this memorandum.

Further Action Needed: Future projects involving sidewalk replacement will specify concrete sidewalk per City of Syracuse Standards.

- 1B. Granite Curb with Only Base Course Pavement.** Due to the fact that only base course paving was installed in the parking lot in the fall of 2011, the curbing will be more susceptible to damage as the result of a vehicle striking it. The City School District has been notified of this and will not use the parking lot during the winter of 2012.

- 1C. Concrete Ring around Structures.** As is specified in the contract drawings and in the manufacturer recommendations, concrete rings are required around the rims of cleanouts and PVC catch basins when installations require H-20+ loading ratings. The contractor did not install these rings in the fall of 2011 prior to paving occurring.

Further Action Needed: After remobilizing in the spring of 2012, the contractor will sawcut the base course paving around the cleanouts, and install the concrete rings as specified in the contract.

- 1D. ADA Detectable Warning Units.** The sidewalk ramps installed as part of this project are required to have ADA detectable warning units for the full length of the concrete ramp slab. In the fall of 2011 when the ramps were installed, the contractor only installed the ramps for 1 panel (5 feet long) of the ramp. The contract documents specify that the units shall be installed through the full length of the ramp.

Further Action Needed: After remobilizing in the spring of 2012, the contractor will install ADA detectable warning units throughout the full length of the sidewalk ramps as specified in the contract documents.

Item #2: Trees and Plantings

- 2A. Planting Progress.** No plantings occurred in the fall of 2011 due to exceeding the planting schedule presented in the specifications.

Further Action Needed: Plantings will occur in the spring of 2012 when the contractor re-mobilizes and completes all remaining work at the site.

Item #3: City Street Structures Permit

- 3A. Delay.** There was a delay (on the part of the City) in the processing of the contractor's Street Cut Permit for this project. The contractor was instructed by the City of Syracuse School District to perform the road cuts on November 11th and the following days because there was no school on those days. Despite not having their permit on these days, the contractor performed the street cuts on this date as well as other street related work when school was off.

Further Action Needed. The City has stated that they will expedite the review of the green infrastructure projects so that delays will not occur in the future. Contractors will be reminded that road cuts should not occur before they receive their street cut permit back from the City.

Item #4: Unforeseen Conditions

- 4A. Water Main Crossing.** During excavation, it was noted that the storm pipe crossing Jamesville Ave. was in direct conflict with an existing water main in the street. As a result, the pipe storm pipe invert elevation was revised. Also, the storm pipe needed to be encased in concrete because the minimum separation between the storm pipe and the water main did not meet the minimum City of Syracuse standard of 18 inches. A modification to the contractor's contract is being processed as of the date of this memorandum.

Further Action Needed: Designs will be closely checked for separation between water and proposed storm pipes using an assumed water main depth. If 18 inches of separation is not possible, concrete encasement will be specified.

- 4B. Road Thickness.** During excavation of Jamesville Ave., it was noted that the asphalt base and binder thickness was significantly more than that of usual City streets. The restoration of this was brought to City DPW's attention, and they stated the road must be restored in the same thicknesses as what was found. Therefore, additional base and binder were needed to complete this work. A modification to the contractor's contract for the extra material is being processed as of the date of this memorandum.

Item #5: Public Outreach

- 5A. Save the Rain Website.** The primary public outreach method for this project was the Save the Rain website. The project specifications, design plans and fact sheet were uploaded to the website to inform the public of the project and what was occurring.

Further Action Needed: The Save the Rain website will continue to act as the primary public outreach method for all of the Save the Rain green projects. However, targeted outreach will occur in more highly populated and sensitive areas to inform the public of the project.

Project Metrics Summary

Bid Price	\$288,700
Change Order Total (as of 12/31/11)	\$0
Total Project Cost (as of 12/31/11)	\$288,700
Total CSO Reduction	1,068,000 gallons
Cost per CSO Reduction	\$0.27 per gallon

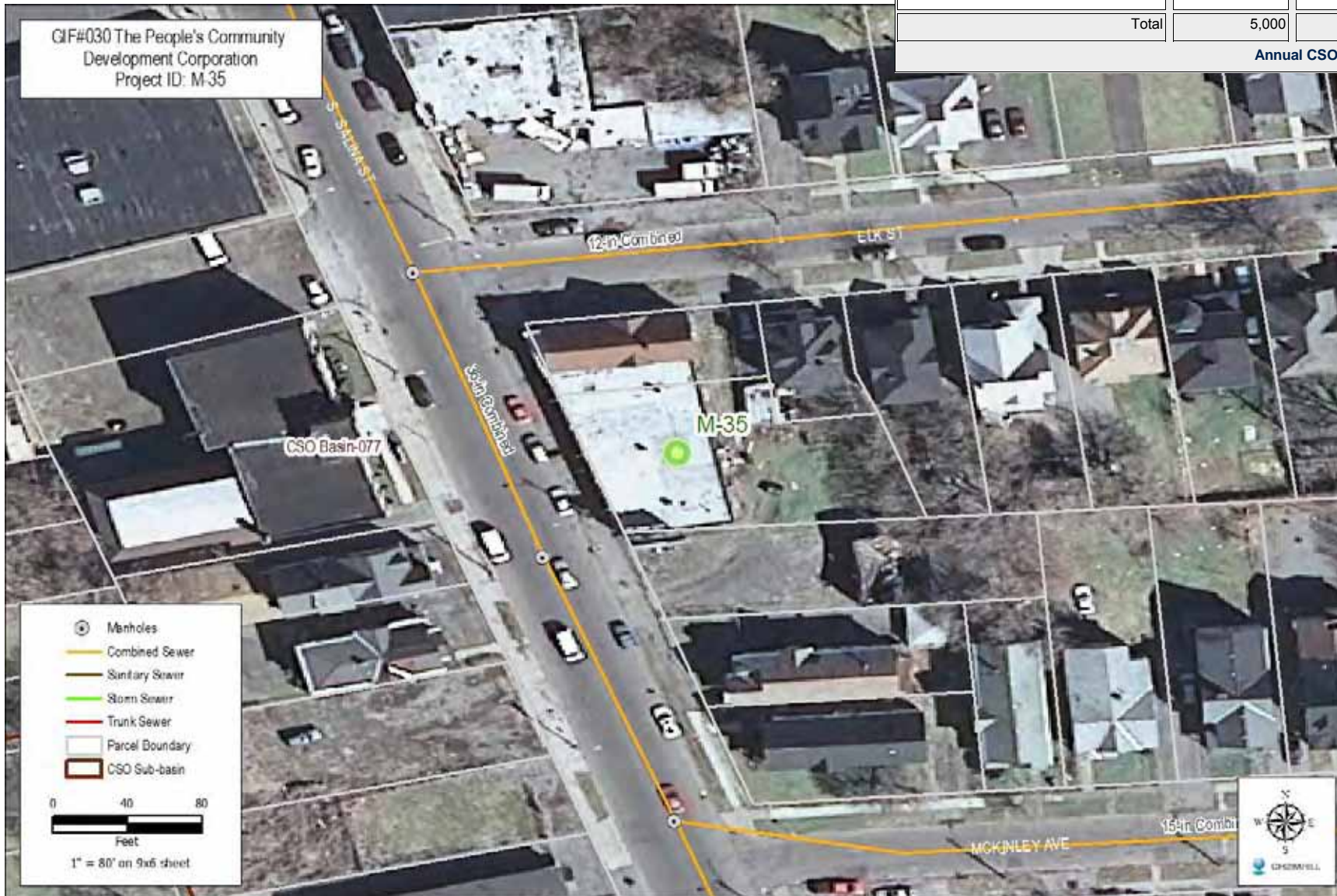


Project ID/Name: M-35 GIFF#030 The People's Community Development Corporation

Proj Address: 2307-2315 S. Salina St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	4,000	4,000	71,000
Tree Trench Standard	1,000	1,000	22,000
Total	5,000	5,000	93,000
Annual CSO Reduction (gal)			66,030



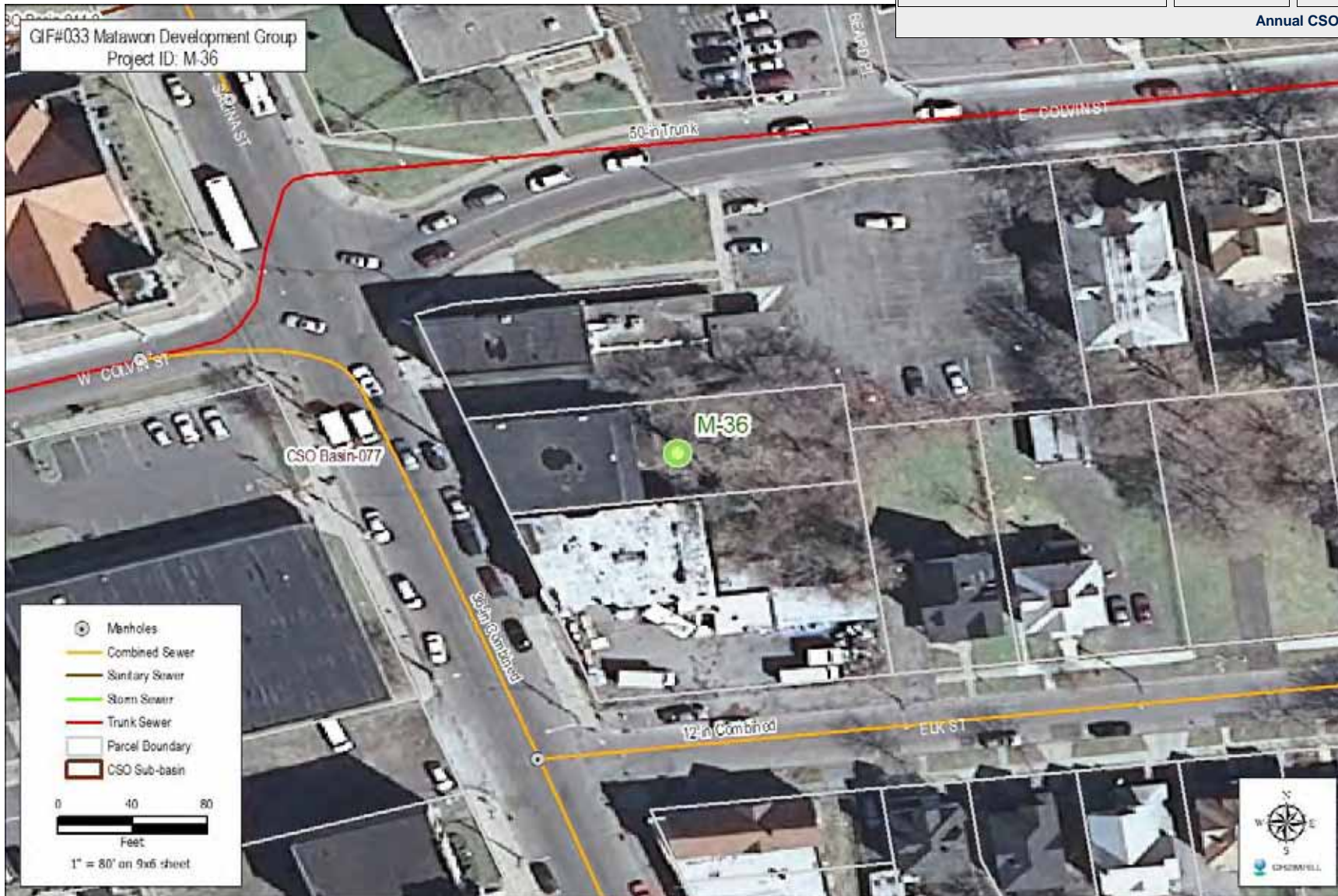


Project ID/Name: M-36 GIF#033 Matawon Development Group

Proj Address: 2221 South Salina Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Bed	3,000	000	63,000
Total	3,000	0	63,000
Annual CSO Reduction (gal)			44,730



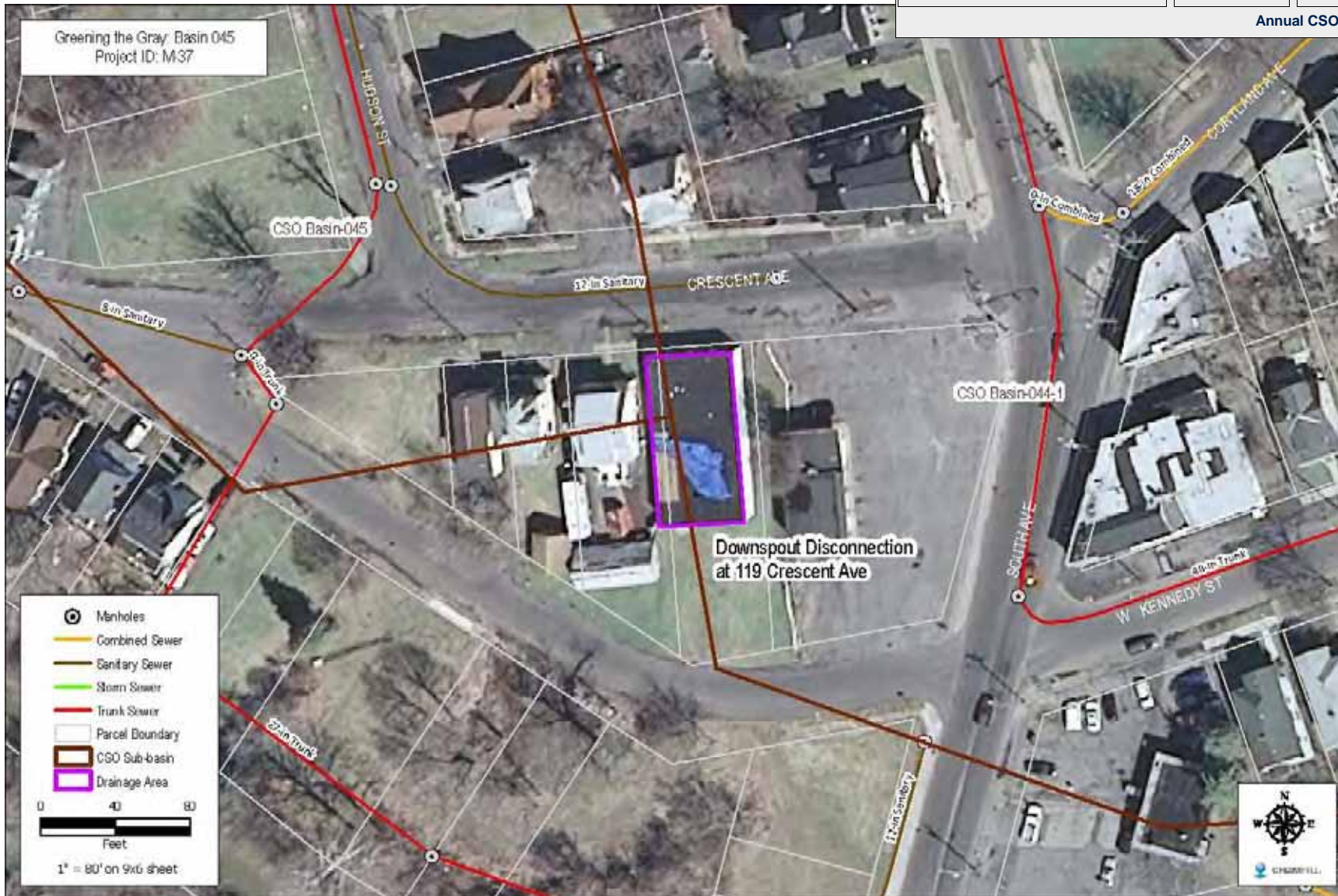


Project ID/Name: M-37 Rooftop Disconnect in CSO 045

Proj Address: 119 Crescent Ave

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Downspout Disconnect	4,000		69,000
Total	4,000		69,000
Annual CSO Reduction (gal)			48,990





FACT SHEET

Greening the Gray in Basin 045

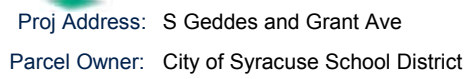
Project Description: The Greening the Gray in Basin 045 project consists of a rooftop downspout disconnection of an existing building along Crescent Ave. and connecting it to an adjacent separated storm sewer. This prevents stormwater runoff from the roof of this building from entering into the combined sewer system. This project is one of several greening of gray projects that Onondaga County is completing under the Save the Rain program.

The rooftop of the building that is being disconnected has an area of approximately 4,000 sq. ft., which equates to an annual stormwater capture and runoff reduction of 69,000 gallons per year.

Project:	Greening the Gray in Basin 045
Project Owner:	Onondaga County/City of Syracuse
Project Location:	Hudson Street & Crescent Ave.
Sewershed:	Midland
GI Technology:	Rooftop Disconnection
Capture Area:	4,000 sq. ft.
Run-off Reduction:	69,000 gal/yr
Year Contracted:	2011
Construction Cost:	TBD
Bid Date:	11/17/11
Prime Contractor:	TBD



Aerial Imagery of CSO 045 Prior to Construction of Gray Save the Rain Project and Associated Greening



Proj Address: S Geddes and Grant Ave
Parcel Owner: City of Syracuse School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Street Trees			
Total			
Annual CSO Reduction (gal)			





FACT SHEET

2011 Arbor Day Tree Plantings at Bellevue Academy

Project Description: In April, several trees were planted at Bellevue Academy on South Geddes Street in the Harbor Brook sewer district to help celebrate Arbor Day 2011.

Onondaga County Executive Joanne M. Mahoney was joined by students and faculty of Bellevue, representatives from Cornell Cooperative Extension and the City of Syracuse Parks Department for the tree planting ceremony. During the event, the County Executive was able to share with students the important role trees play in absorbing stormwater and what it means to the health of Onondaga Lake. The County Executive also announced plans for the new "Save the Rain" Urban Forestry Program, designed to plant 8,500 trees throughout the City by 2018.

In addition to the announcement, County Executive Mahoney helped students from the Academy plant a tree in front of the main entrance of the facility. The tree plantings at Bellevue are expected to capture and prevent 20,000 gallons of stormwater runoff from entering the sewer each year.

Project:	Bellevue Academy
GI Technology:	Tree Plantings
Project Location:	1607 S. Geddes St.
Project Owner:	Onondaga County
Sewershed:	Midland
Run-off Reduction:	20,000 gallons/yr
Year Completed:	2011
Construction Cost:	\$ 0
Prime Contractor:	City of Syracuse Parks Department



County Executive Joanne M. Mahoney addresses students of Bellevue Academy at the Arbor Day tree planting



Bellevue Academy students planting trees with the County Executive

Version 7/28/2011



Parcel Owner: Private

Map of the M-41 project area in Swallow's Tavern, showing sewer lines, manholes, and CSO basins. The map includes a legend, a scale bar (0 to 140 feet), and a north arrow.

Legend:

- Manholes
- Combined Sewer
- Sanitary Sewer
- Storm Sewer
- Trunk Sewer
- Parcel Boundary
- CSO Sub-basin

Scale: 0 70 140 Feet
1" = 140' on 9x6 sheet

Map Labels: CRAIDOCK ST, 27-in Combined, 48-in Trunk, 6-in Storm, 24-in Combined, 18-in Combined, 24-in Trunk, 18-in Trunk, 6-in Sanitary, CSO Basin-052, CSO Basin-053, CSO Basin-054, W. BRIGHTON AVE, SOUTH AVE, VALLEY DR, W. LAFAYETTE AVE, M-41.

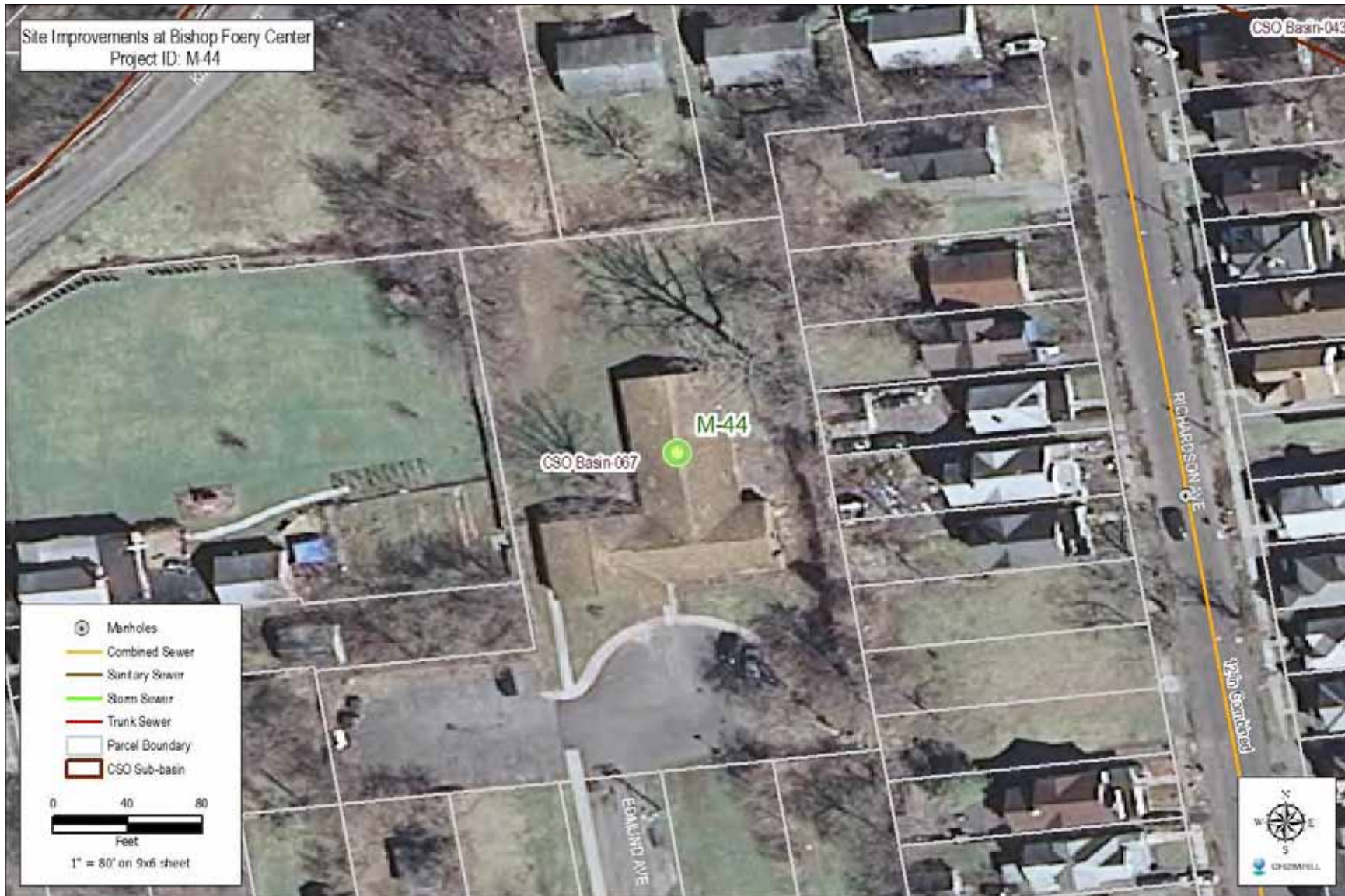
Total	22,000
Annual CSO	



Project ID/Name: M-44 Site Improvements at Bishop Foery Center

Proj Address:

Parcel Owner: Private





Project ID/Name: M-45 Rain Garden at Barnabas Center

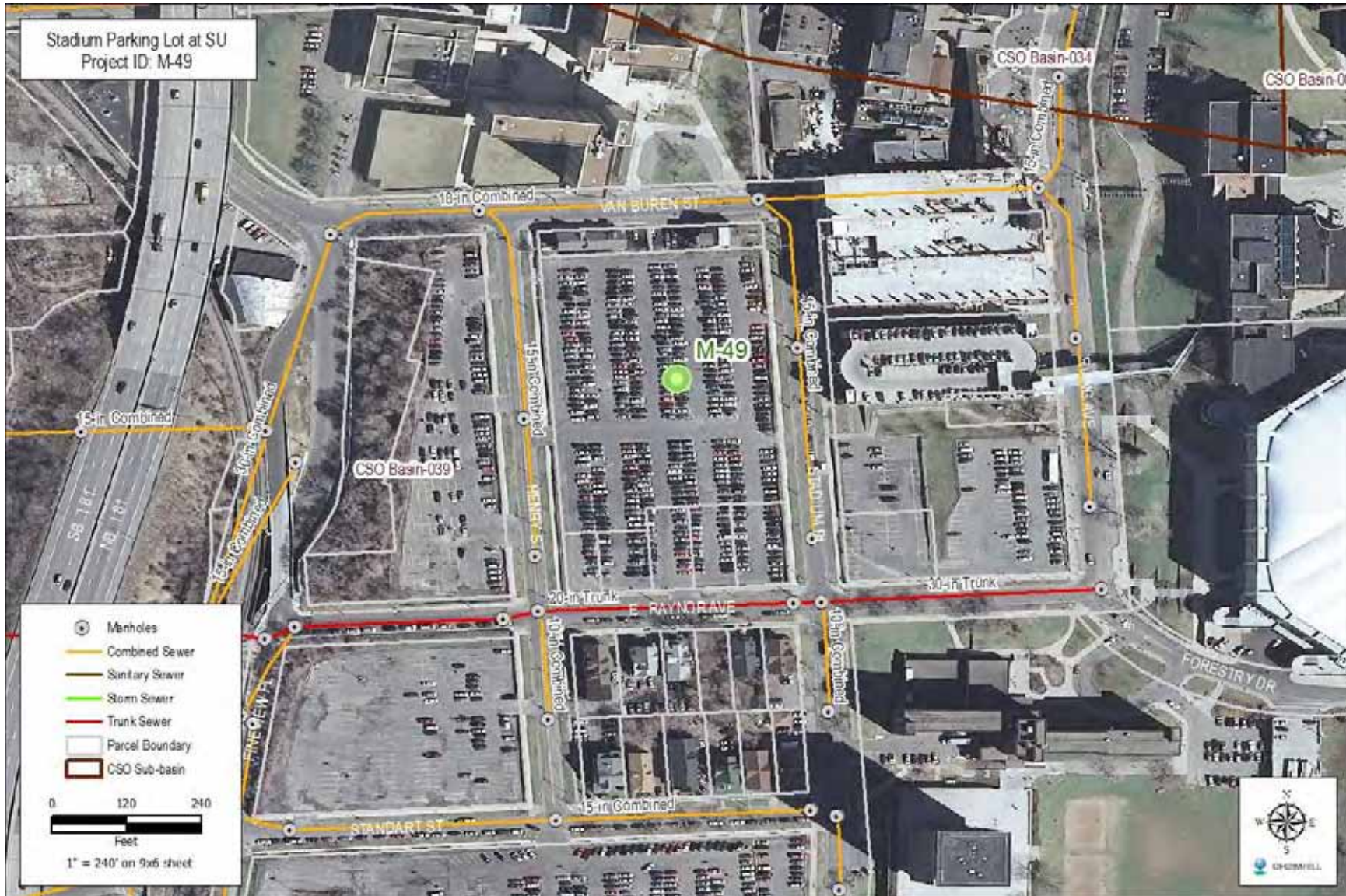
Proj Address: 1941 S Salina St

Parcel Owner: Private





Parcel Owner: Syracuse University



INSERT TAB FOR 2012 GI
PROJECTS HERE



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2012 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	CH2M LEAD	3-DESIGN	C-100	Everson Garage / Plaza	788 S Townsend St	2012	County of Onondaga	929,000	\$185,800	\$0.20
2	TRACK ONLY	3-DESIGN	C-106	GIF#042 Center for Peace and Social Justice	2013 E. Genesee St	2012	Private	94,000	\$63,400	\$0.68
3	TRACK ONLY	3-DESIGN	C-118	GIF#047 Gemmi Boy	508-510 Westcott Street	2012	Private	34,000	\$26,837	\$0.79
4	TRACK ONLY	3-DESIGN	C-119	GIF#048 Mister Lady Bug	500-506 Westcott Street	2012	Private	100,000	\$57,950	\$0.59
5	TRACK ONLY	3-DESIGN	C-125	GIF#055 Bethany Baptist Church	149 Beattie Street	2012	Private	1,504,000	\$254,588	\$0.17
6	CH2M LEAD	3-DESIGN	C-53	City Hall Forecourt	233 E. Washington Street	2012	City of Syracuse	404,000	\$376,000	\$0.93
7	CH2M LEAD	3-DESIGN	C-60	Green School: Seymour Academy Playground	108 Shonnard Street	2012	Syracuse City School District	381,000	\$265,000	\$2.06
8	CH2M LEAD	3-DESIGN	C-68	Street Trees along Marcellus Ave	Marcellus from S Geddes to Seneca	2012	City of Syracuse	28,000	\$7,000	\$0.25
9	CH2M LEAD	3-DESIGN	C-73	Onondaga Street Corridor/Gateway Project	From W Adams to South Ave	2012	City of Syracuse			
10	CH2M LEAD	3-DESIGN	C-86	Bank Alley Enhancement	Alley between E Washington and E Fayette St	2012	City of Syracuse	440,000	\$182,000	\$0.41
11	CH2M LEAD	3-DESIGN	C-88	Almond Street Pavement Removal	Between Madison and E. Genesee	2012	City of Syracuse	398,000	\$361,252	\$0.91
12	TRACK ONLY	3-DESIGN	C-95	SUNY Townsend Tower	507-523 E Adams Street	2012	Private			
13	TRACK ONLY	3-DESIGN	C-98b	Clinton Storage: MoST Roof Leaders	Street North to West Jefferson (Trolley Lot)	2012	County of Onondaga	963,000	\$0	\$0.00
14	CH2M ASSIST AND TRACK	3-DESIGN	E-08	Green Library: Petit Branch	105 Victoria Place	2012	City of Syracuse	134,000	\$105,000	\$0.78
15	CH2M LEAD	3-DESIGN	E-18	Traffic Triangle Project No. 1: Harvard Pl	Westmoreland and Harvard Place	2012	City of Syracuse	410,000	\$75,489	\$0.18
16	CH2M LEAD	3-DESIGN	E-43	Westcott Community Center	822-26 Euclid Ave and Westcott St	2012	City of Syracuse	108,630	\$15,070	\$0.14
17	CH2M ASSIST AND TRACK	3-DESIGN	F-02	Green Library: White Branch	763 Butternut St	2012	City of Syracuse	141,000	\$85,000	\$0.60
18	CH2M LEAD	3-DESIGN	F-04	City Parking Lot #4	Butternut and N State Sts	2012	New York State DOT	854,130	\$313,250	\$0.37
19	CH2M LEAD	3-DESIGN	F-04b	Green Street: N State St at City Lot 4	N State St bw Butternut and Ash	2012	City of Syracuse	849,000	\$111,876	\$0.13
20	CH2M LEAD	3-DESIGN	F-07	Magnarelli Community Center Green Roof	2308 Grant Blvd	2012	City of Syracuse Parks Depart	127,800	\$188,416	\$1.47
21	CH2M ASSIST AND TRACK	3-DESIGN	H-05b	Green Library: Hazard Branch Site Improvements	1620 West Genesee St	2012	City of Syracuse	192,000	\$125,000	\$0.65
22	CH2M ASSIST AND TRACK	3-DESIGN	H-06	Green Library: Mundy Branch	1204 South Geddes St	2012	City of Syracuse	105,000	\$100,000	\$0.95
23	CH2M ASSIST AND TRACK	3-DESIGN	H-09	Green School: Playground at Delaware School	900 S Geddes St	2012	Syracuse City School District	126,000	\$76,230	\$0.60
24	CH2M LEAD	3-DESIGN	H-14	Harbor Brook CSO 018 Wetland Project	Velasko Rd & Grand Ave	2012	County of Onondaga	14,880,000	\$2,490,000	
25	TRACK ONLY	3-DESIGN	H-28	GIF#036 Dependable Paving: 945 Emerson	945 Emerson Ave	2012	Private	53,000	\$32,700	\$0.61
26	TRACK ONLY	3-DESIGN	H-29	GIF#037 Dependable Paving: 947 Emerson	947 Emerson Ave	2012	Private	54,000	\$33,975	\$0.63
27	CH2M ASSIST AND TRACK	3-DESIGN	M-10b	Green Library: Beauchamp Site Improvements	2111 S. Salina St	2012	City of Syracuse	160,000	\$85,000	\$0.53
28	CH2M LEAD	3-DESIGN	M-12a	US Post Office on Salina St: Green Roof	2200 S. Salina St	2012	United States Postal Service	161,000	\$236,331	\$1.47
29	TRACK ONLY	3-DESIGN	M-31	GIF#025 Salina Shoe Company Inc	2809 S. Salina Street	2012	Private	77,000	\$85,000	\$1.10
30	TRACK ONLY	3-DESIGN	M-40	GIF#046 People's AME Zion Church	2306 S. Salina	2012	Private	51,000	\$80,642	\$1.58
31	TRACK ONLY	3-DESIGN	M-42	Greening Vacant Lot near Beauchamp Library	tbd	2012	City of Syracuse			
32	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-03	Develop and Implement a Revised Stormwater Ordinance	NA	2012	NA			
33	CH2M ASSIST AND TRACK	3-DESIGN	ZZ-04	Track Projects that Apply a Revised Stormwater Ordinance	NA	2012	NA			
34	CH2M LEAD	4-FIELD/ES	C-104	Civic Center Forecourt	E Onondaga St. and Montgomery St.	2012	City of Syracuse	107,000	\$88,000	\$0.83
35	CH2M LEAD	4-FIELD/ES	C-110	Seymour Academy Parking Lot	180 Shonnard St	2012	Syracuse City School District	290,000	\$112,590	\$0.39
36	CH2M LEAD	4-FIELD/ES	C-74b	Otisco Street Green Corridor Phase 2	From Oswego St to Wyoming St	2012	City of Syracuse	2,301,000	\$232,884	\$0.10

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
37	CH2M LEAD	4-FIELD/ES	C-89	Greening of S Salina and S Warren Intersection	600 block S Salina St and 700 block S Warren St	2012	City of Syracuse	544,000	\$132,471	\$0.24
38	CH2M LEAD	4-FIELD/ES	E-07	Private Parking Lot-Marshall St and Crouse Ave	801 - 841 Crouse Ave. & Marshall St	2012	Syracuse University	188,000	\$64,360	\$0.34
39	CH2M LEAD	4-FIELD/ES	E-11	Green Park: Highland Park Greening	421 Highland	2012	City of Syracuse Parks Depart	132,000	\$65,033	\$0.49
40	CH2M LEAD	4-FIELD/ES	E-33	I-690 Disconnection	Leavenworth Ave beneath I-690 Bridge	2012	New York State DOT			
41	CH2M LEAD	4-FIELD/ES	E-40a	Westcott Street Green Street: Knoll at S. Beech	Westcott St at S Beech St	2012	City of Syracuse	56,000	\$13,442	\$0.24
42	CH2M LEAD	4-FIELD/ES	E-40b	Westcott Street Greening	Westcott St from Dell to S. Beech St	2012	City of Syracuse	626,000	\$108,000	\$0.17
43	TRACK ONLY	4-FIELD/ES	F-06	Triangle at Grant Blvd and Butternut St	Grant Blvd & Butternut St	2012	City of Syracuse			
44	CH2M LEAD	4-FIELD/ES	H-25	Green Street S Geddess	S Geddes St, Shonnard to W Onondaga St	2012	City of Syracuse			
45	CH2M LEAD	4-FIELD/ES	H-34	Rosamond Gifford Zoo: Parking Lot	One Conservation Place	2012	County of Onondaga	3,432,000	\$688,120	\$0.20
46	CH2M LEAD	5-CONCEPT	C-06a	Capture/Reuse at the County Justice Center	555 S. State Street	2012	County of Onondaga	163,000	\$30,000	\$0.18
47	CH2M LEAD	5-CONCEPT	C-111	Pavement Removal: Rugby Rd and Hampton Rd	Rugby Rd and Hampton Rd.	2012	City of Syracuse			
48	CH2M LEAD	5-CONCEPT	C-112	Green School: Lincoln Jr. High School	James St and Hampton Rd	2012	Syracuse City School District			
49	CH2M LEAD	5-CONCEPT	C-113	Green Street: S. Beech and Judson	S. Beech and Judson Streets	2012	City of Syracuse			
50	CH2M LEAD	5-CONCEPT	C-114	Green Street: Waverly St.	Waverly Street from Irving to Comstock St.	2012	City of Syracuse			
51	CH2M ASSIST AND TRACK	5-CONCEPT	C-115	Hanover Square	E Water St and S Warren St	2012	City of Syracuse			
52	CH2M LEAD	5-CONCEPT	C-116	Greening of Post Standard	1 S Clinton St	2012	Private			
53	TRACK ONLY	5-CONCEPT	C-124	GIF#54 Syracuse University Waverly Ave. Parking Lot	306-12 Waverly Ave	2012	Private			
54	CH2M LEAD	5-CONCEPT	C-132	Green Park: Leavenworth/Barker Park	301 Park Ave and Matty Ave	2012	City of Syracuse Parks Depart	872,000	\$442,520	\$0.51
55	CH2M LEAD	5-CONCEPT	C-133	Green Park: Westmoreland Park	200-252 Westmoreland Ave	2012	City of Syracuse Parks Depart			
56	CH2M LEAD	5-CONCEPT	C-136	Green Park: Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	351,000	\$122,190	\$0.35
57	CH2M LEAD	5-CONCEPT	C-136b	Pavement Removal along Genesee St at Loguen Park	1801 E Genesee St and Lexington Ave	2012	City of Syracuse Parks Depart	237,140	\$148,398	\$0.63
58	CH2M LEAD	5-CONCEPT	C-137	Green Park: Schiller Park	112 Whitwell Dr	2012	City of Syracuse Parks Depart			
59	CH2M LEAD	5-CONCEPT	C-138	Green Park: Grace Park	200 Grace St and Massena St	2012	City of Syracuse Parks Depart	45,000	\$16,400	\$0.37
60	CH2M LEAD	5-CONCEPT	C-143	Vacant Lot: Fayette St Orchard	2016-24 E Fayette St	2012	City of Syracuse			
61	TRACK ONLY	5-CONCEPT	C-149	GIF#063 Brewster Medical Properties		2012	Private			
62	TRACK ONLY	5-CONCEPT	C-150	GIF#064 Cathedral Academy		2012	Private			
63	TRACK ONLY	5-CONCEPT	C-151	GIF#065 Housing Visions		2012	Private			
64	TRACK ONLY	5-CONCEPT	C-152a	GIF#066 Third National Assoc. (Parcel A)		2012	Private			
65	TRACK ONLY	5-CONCEPT	C-152b	GIF#067 Third National Assoc. (Parcel B)		2012	Private			
66	TRACK ONLY	5-CONCEPT	C-152c	GIF#068 Third National Assoc. (Parcel C)		2012	Private			
67	CH2M ASSIST AND TRACK	5-CONCEPT	C-27	Bioretention at the Rescue Mission	155 Gifford Street	2012	Private	372,000	\$47,052	\$0.13
68	CH2M LEAD	5-CONCEPT	C-32b	County Court House Site	401 Montgomery Street	2012	County of Onondaga	99,000	\$44,055	\$0.44
69	CH2M LEAD	5-CONCEPT	C-34a	Green Roof at OnCenter : Phase II	800 S. State Street	2012	County of Onondaga	120,000	\$0	\$0.00
70	CH2M LEAD	5-CONCEPT	C-36b	City / County Criminal Court House Site	505 S. State Street	2012	City of Syracuse	144,000	\$191,000	\$1.33
71	CH2M ASSIST AND TRACK	5-CONCEPT	C-63a	Synapse Project - 658 W Onondaga St	659 W. Onondaga St	2012	Private	154,000		
72	CH2M ASSIST AND TRACK	5-CONCEPT	C-63b	Synapse Project - Urban Tree Nursery	663 & 659 W Onondaga St	2012	Private	100,000		
73	CH2M ASSIST AND TRACK	5-CONCEPT	C-63c	Synapse Project - W. Onondaga Street	600 block W Onondaga St	2012	Private	2,500,000		
74	CH2M LEAD	5-CONCEPT	C-64	Green Park: Thornden Park	501 Ostrom Ave	2012	City of Syracuse Parks Depart			
75	CH2M ASSIST AND TRACK	5-CONCEPT	C-67	Greening West Street Arterial Phase 1	West Street Arterial from Onondaga St to Genessee St	2012	City of Syracuse			
76	TRACK ONLY	5-CONCEPT	C-69	GIF#019 Viraj Salina, Inc.	2703-2731 S. Salina St	2012	Private	18,000	\$22,000	\$1.24

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
77	TRACK ONLY	5-CONCEPT	C-76	GIF#021 Alexander West Properties, LLC	307 Gifford Street	2012	Private	60,000	\$85,691	\$1.42
78	CH2M LEAD	5-CONCEPT	C-80	SFD Firehouse #1 at State St	900 S State St	2012	City of Syracuse			
79	CH2M LEAD	5-CONCEPT	C-81	SFD Firehouse #5 Geddes St	110 N Geddes St	2012	City of Syracuse			
80	CH2M LEAD	5-CONCEPT	C-82	SFD Firehouse #6 at West St	601 S West St	2012	City of Syracuse			
81	CH2M LEAD	5-CONCEPT	C-83	SFD Firehouse #7 at Fayette St	1039 E Fayette St	2012	City of Syracuse			
82	CH2M LEAD	5-CONCEPT	C-84	SFD Firehouse #10 - Genesee St	2030 E Genesee Street	2012	City of Syracuse			
83	TRACK ONLY	5-CONCEPT	C-90	WCNY and NWSI / Pro Literacy	101-19 Wyoming St & Fayette St W	2012	Private			
84	TRACK ONLY	5-CONCEPT	C-94	GIF#032 Consuela's Westside Taqueria and BBQ	523 Marcellus St	2012	Private	74,000	\$14,600	\$0.20
85	CH2M ASSIST AND TRACK	5-CONCEPT	C-97	Marcellus Street Parking Alignment	100 block Marcellus St, b/w Wyoming and West	2012	City of Syracuse			
86	CH2M LEAD	5-CONCEPT	E-13b	US Post Office on Teall Ave: Site Improvements	226 Teall Avenue	2012	United States Postal Service			
87	CH2M LEAD	5-CONCEPT	E-22	Green Park: Lincoln Park	Intersection of Robinson and Sherwood Ave	2012	City of Syracuse	264,000	\$109,804	\$0.42
88	CH2M LEAD	5-CONCEPT	E-41	Rose Hill Cemetery	Intersection of Lodi and E Willow St	2012	City of Syracuse			
89	CH2M ASSIST AND TRACK	5-CONCEPT	F-05a	Prospect Park Green Gateway - Phase 1	Prospect Park, E Laurel St to N Salina St	2012	City of Syracuse	1,354,000	\$535,600	\$0.40
90	CH2M ASSIST AND TRACK	5-CONCEPT	F-05b	Prospect Park Green Gateway - Phase 2	N Salina and 200 Block Butternut St	2012	City of Syracuse	1,291,000	\$515,000	\$0.40
91	CH2M LEAD	5-CONCEPT	F-07b	Green Park: McChesney Park	2308 Grant Blvd	2012	City of Syracuse Parks Depart	368,000	\$98,560	\$0.27
92	CH2M LEAD	5-CONCEPT	H-02	Green School: Porter Magnet School	512 Emerson Ave	2012	Syracuse City School District	1,005,000	\$331,721	\$0.33
93	CH2M LEAD	5-CONCEPT	H-03	Green School: Bellevue Middle School	1607 S. Geddes St	2012	Syracuse City School District	190,000	\$130,686	\$0.69
94	TRACK ONLY	5-CONCEPT	H-23	GIF#023 K & C Auto Body Shop	2104 Erie Boluevard West and 1207 Willis Avenue	2012	Private	153,000	\$98,500	\$0.65
95	CH2M ASSIST AND TRACK	5-CONCEPT	H-30	Vacant Lot Project #3	Arthur St and W Onondaga St	2012	City of Syracuse			
96	CH2M LEAD	5-CONCEPT	H-31	Rosamond Gifford Zoo: Waterfowl Exhibits	One Conservation Place	2012	County of Onondaga	932,000	\$90,000	\$0.10
97	CH2M LEAD	5-CONCEPT	H-32	Greening of Sackett Tract	W Genesee St., Park Ave., Lakeview Ave.	2012	City of Syracuse	343,000	\$107,420	\$0.31
98	CH2M LEAD	5-CONCEPT	H-33	Green Park: Lewis Park Enhancements	305 Lewis St and 825 Milton Ave	2012	City of Syracuse Parks Depart	352,000	\$112,886	\$0.32
99	CH2M LEAD	5-CONCEPT	H-35	Vacant Lot: Everson Ave Rain Garden	701 Emerson Ave & 101 Chemung St	2012	City of Syracuse			
100	CH2M LEAD	5-CONCEPT	H-36	Green Park: Wadsworth Park	1204 Glenwood Ave and Wolcott Ave	2012	City of Syracuse Parks Depart	359,000	\$165,640	\$0.46
101	CH2M LEAD	5-CONCEPT	H-37	Vacant Lot: Delaware/Dudley Orchard	100,102 Dudley & 401 Delaware	2012	City of Syracuse			
102	CH2M LEAD	5-CONCEPT	H-38	Vacant Lot: Putnam Street	224, 226 Putnam ST	2012	City of Syracuse			
103	CH2M LEAD	5-CONCEPT	M-05	Stream Inflow Removal #1	I-81 near Woodland Ave.	2012	City of Syracuse			
104	CH2M LEAD	5-CONCEPT	M-06	Stream Inflow Removal #2	I-81 near Colvin Ave.	2012	City of Syracuse			
105	CH2M LEAD	5-CONCEPT	M-07	Stream Inflow Removal #3	Oakwood Cemetery near Moore Ave.	2012	City of Syracuse			
106	CH2M LEAD	5-CONCEPT	M-11b	SFD Firehouse #8 at Salina St (Site)	2412 S. Salina St	2012	City of Syracuse	109,000	\$50,118	\$0.46
107	CH2M LEAD	5-CONCEPT	M-12b	US Post Office on Salina Street: Site Improvements	2200 S. Salina St	2012	United States Postal Service	593,000	\$78,280	\$0.13
108	CH2M LEAD	5-CONCEPT	M-29b	Vacant Lot: 147 Hughes Place	147 Hughes Place	2012	City of Syracuse			
109	CH2M LEAD	5-CONCEPT	M-29c	Vacant Lot: 220 Lorraine Ave	220 Lorraine Ave	2012	City of Syracuse			
110	TRACK ONLY	5-CONCEPT	M-32	GIF#027 People's AME Zion Church	2226-28 South Salina St.	2012	Private	94,000	\$54,700	\$0.58
111	TRACK ONLY	5-CONCEPT	M-33	GIF#028 Viraj NY LLC (Deb's Convenience Market)	2419 South Salina St	2012	Private	263,000	\$85,750	\$0.33
112	TRACK ONLY	5-CONCEPT	M-34	GIF#029 Viraj Salinia Inc. (Factory Direct Furniture and Mattress)	2711-31 and 2703 South Salina St	2012	Private	437,000	\$32,737	\$0.07
113	CH2M LEAD	5-CONCEPT	M-43	Green Park: Comfort Tyler Park	1212-14 E Colvin St and Comstock Ave	2012	City of Syracuse Parks Depart	611,000	\$195,004	\$0.32
114	CH2M LEAD	5-CONCEPT	M-46	Green Street: Salina b/w E. Colvin and E. Brighton	Salina b/w E. Colvin and E. Brighton	2012	City of Syracuse			
115	CH2M LEAD	5-CONCEPT	T-01	SFD Firehouse #9 at Shuart Ave	400 Shuart Ave	2012	City of Syracuse			

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
116	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-05	Develop and Implement an Impervious Area Based Rate Incentive	NA	2012	NA			
117	CH2M ASSIST AND TRACK	5-CONCEPT	ZZ-06	Track Projects that Apply an Impervious Area Based Rate Incentive	NA	2012	NA			
118	CH2M LEAD	5-CONCEPT	ZZ-09a	Civil Unit Price Contract-2012	N/A	2012	Multiple			
119	TRACK ONLY	6-IDEA	C-130	State Office Building Parking Lot	333 E. Washington St.	2012	New York State			
120	CH2M LEAD	6-IDEA	C-142	Pavement Removal in ROW @Walnut ST	500 Block Walnut ST at Genesse	2012	City of Syracuse			
121	CH2M LEAD	6-IDEA	C-145	Park at Lodi and N. State	Lodi and N. State	2012	City of Syracuse Parks Depart			
122	CH2M LEAD	6-IDEA	C-148	Sunnycrest Park at Clifton Place	Clifton Place at Sunnycrest Park entrance	2012	City of Syracuse Parks Depart			
123	TRACK ONLY	6-IDEA	C-28	SUNY Upstate BioTechnology Center (Kennedy Sq. Redev)	820-900 E. Water St.	2012	SUNY Upstate			
124	CH2M LEAD	6-IDEA	C-47	County Parking Lot at Townsend St. and Justice Center	555 S. State Street	2012	County of Onondaga			
125	CH2M LEAD	6-IDEA	C-54e	East Side of Montgomery Street	Montgomery St	2012	City of Syracuse	146,260	\$106,000	\$0.72
126	CH2M LEAD	6-IDEA	C-87	VA Medical Facility	800 Irving Ave	2012	USA			
127	CH2M LEAD	6-IDEA	E-05	Commercial Green Streets: Erie Boulevard in EBSS Basin	Teall Avenue to Midler Avenue	2012	City of Syracuse			
128	TRACK ONLY	6-IDEA	E-09	Crouse Hospital: Parking at Hospital Entrance	E. Adams St & S Crouse Ave.	2012	Crouse Health Hospital			
129	CH2M LEAD	6-IDEA	E-17	Green School: T.A. Levy School	Fellows Ave and Harvard Place	2012	Syracuse City School District			
130	CH2M LEAD	6-IDEA	E-19	Green School: Henniger High School	600 Robinson Street	2012	Syracuse City School District			
131	CH2M LEAD	6-IDEA	E-20	Green School: Huntington School	Sunnycrest Rd and Stanford	2012	Syracuse City School District			
132	CH2M LEAD	6-IDEA	E-21	City DPW Maintenance Building	1200 Canal Street	2012	City of Syracuse			
133	CH2M LEAD	6-IDEA	E-32	Parking Lot at 1101 Erie Blvd. East	1101 Erie Blvd. East	2012	1101 Investors LLC			
134	CH2M LEAD	6-IDEA	H-22	Green Street: 800 block Park Ave	800 block Park Ave @ Liberty St	2012	City of Syracuse			
135	TRACK ONLY	6-IDEA	IH-03	Commercial Green Streets: Hiawatha Boulevard	TBD	2012	City of Syracuse			
136	TRACK ONLY	6-IDEA	M-30	Southwest Community Center	401-45 South Ave & Clover St	2012	City of Syracuse			
137	CH2M LEAD	6-IDEA	M-47	Neighborhood GI at Midland 067	Midland Basin 067	2012	Public			
138	CH2M LEAD	6-IDEA	ZZ-08	City Parks Spray Fountain Volume Reduction Project	multiple	2012	City of Syracuse Parks Depart			

1) Note: Gray highlighted cells indicate as-constructed cost

Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total45,607,960\$11,586,019Average0.54



Candidate 2012
Green Infrastructure Projects

- 2012 GI Project Location (ID - ###)
- CSO Sewersheds
- Clinton/Lower MIS
 - Harbor Brook
 - Hiawatha RTF
 - Midland RTF
 - Separated



ap prepared 01-17-12

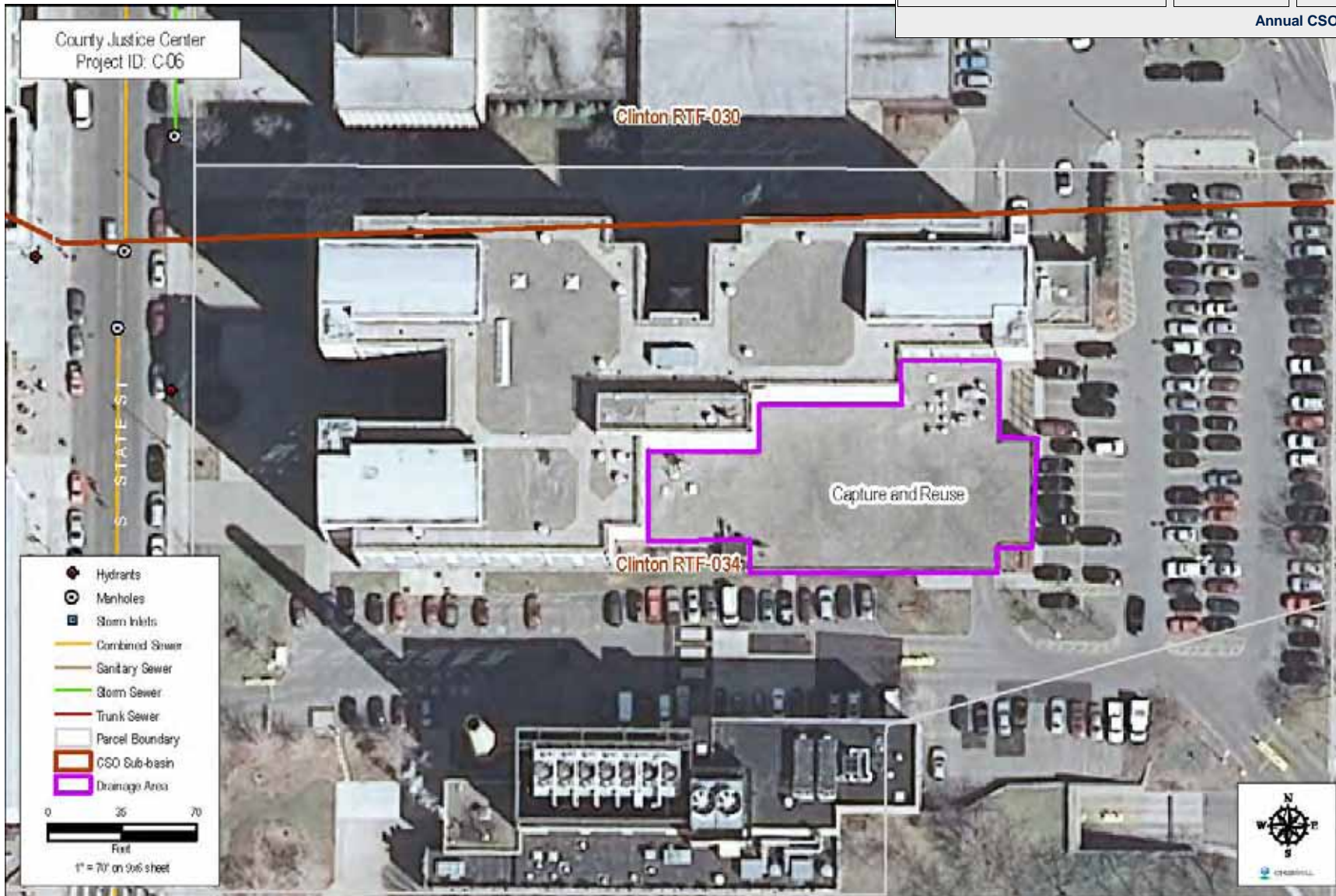


Project ID/Name: C-06 Green Roof at the County Justice Center

Proj Address: 555 S. State Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Cistern/Rain Barrel	13,000		229,000
Total	13,000		229,000
Annual CSO Reduction (gal)			162,590





Project ID/Name: C-27 Bioretention at the Rescue Mission

Proj Address: 155 Gifford Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	29,769	2,869	524,287
Total	29,769	2,869	524,287





Project ID/Name: C-28 SUNY Upstate BioTechnology Center (Kennedy Sq. Redev)

Proj Address: 820-900 E. Water St.

Parcel Owner: SUNY Upstate



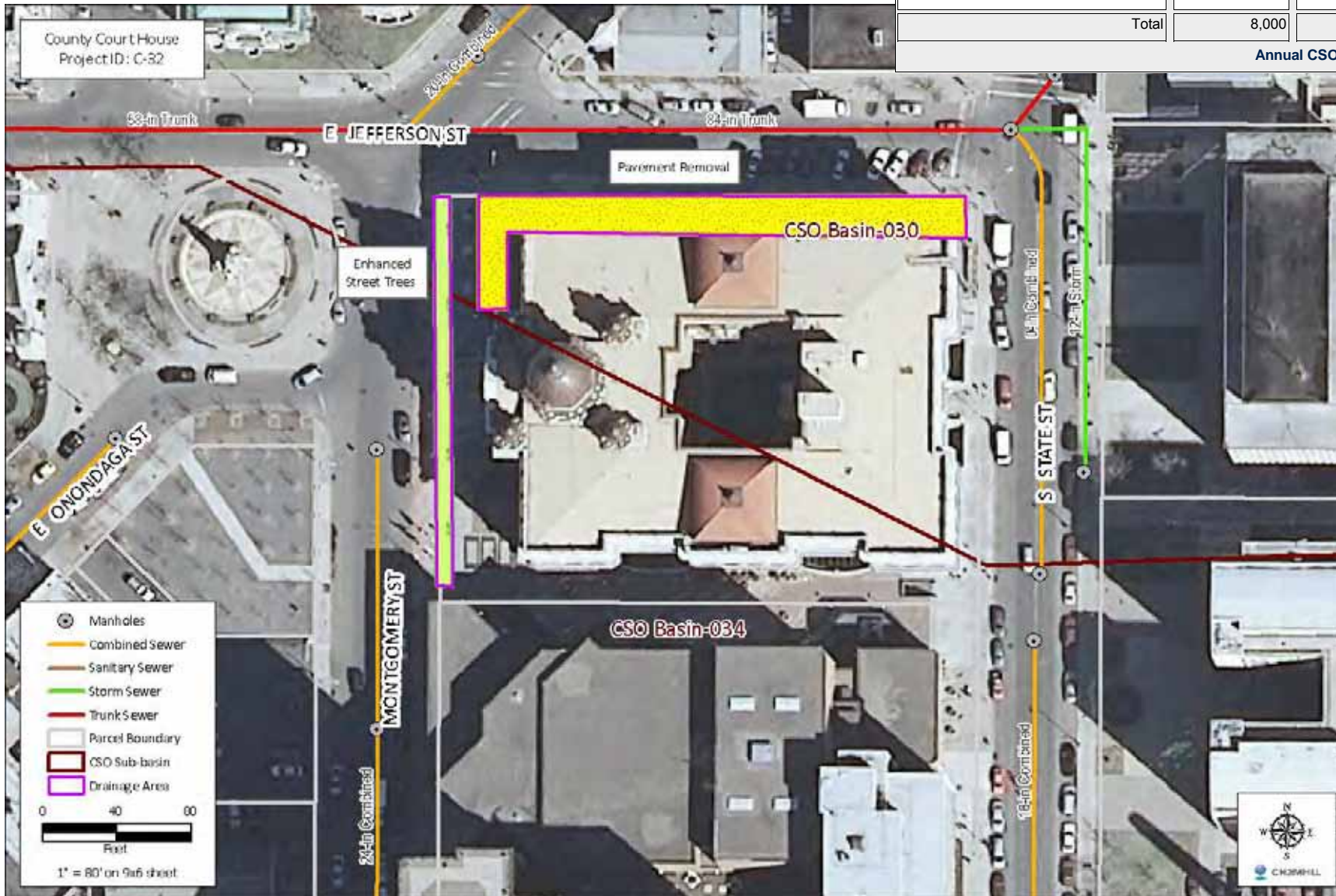


Project ID/Name: C-32b County Court House Site

Proj Address: 401 Montgomery Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Enhanced Street Trees	2,000	2,000	32,000
Pavement Removal	6,000	6,000	108,000
Total	8,000	8,000	140,000
Annual CSO Reduction (gal)			99,400





Project ID/Name: C-34a Green Roof at OnCenter : Phase II

Proj Address: 800 S. State Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	6,000	6,000	107,000
Green Roof	4,000	4,000	62,000
Total	10,000	10,000	169,000
Annual CSO Reduction (gal)			119,990



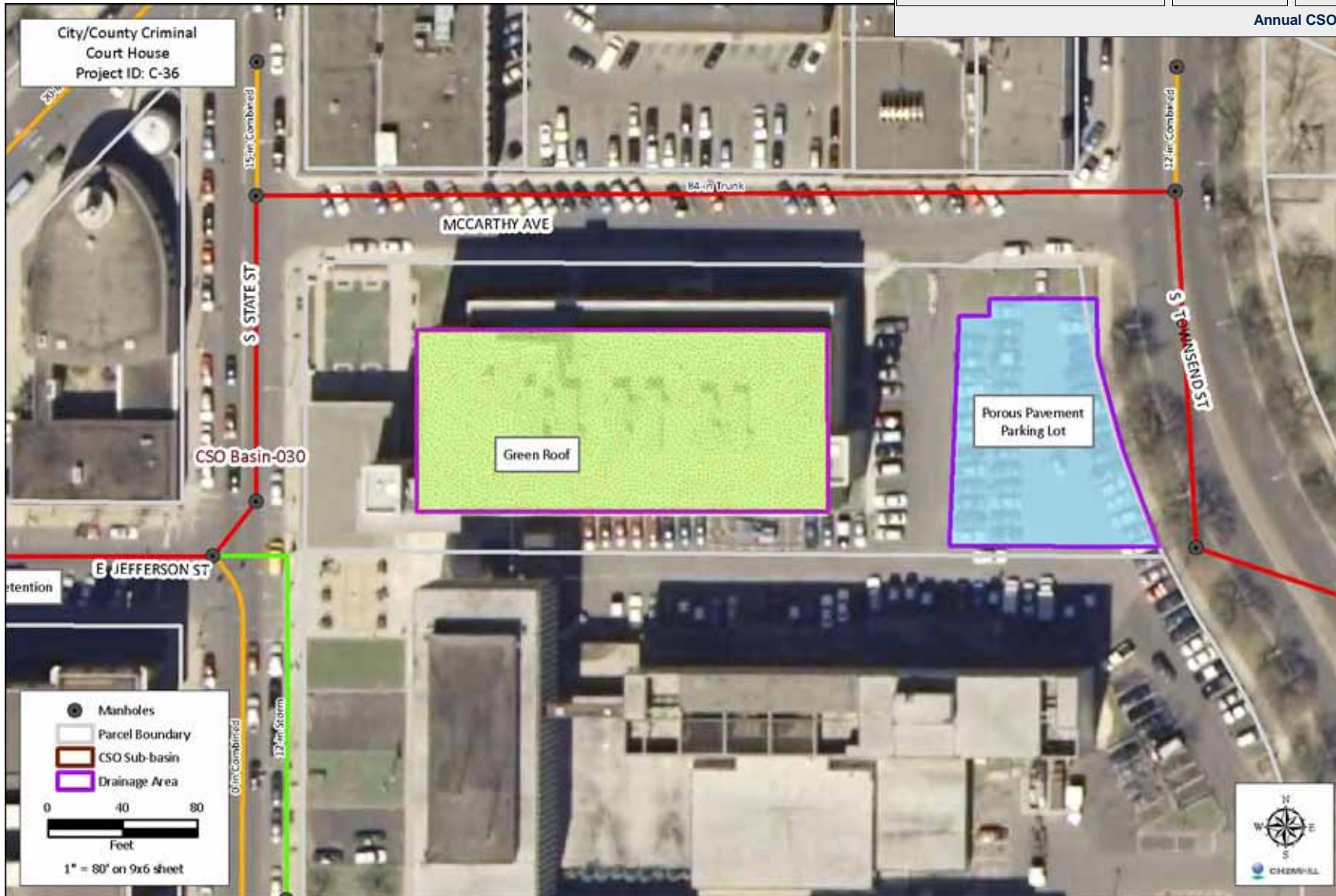


Project ID/Name: C-36b City / County Criminal Court House Site

Proj Address: 505 S. State Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	12,000	12,000	203,000
Total	12,000	12,000	203,000
Annual CSO Reduction (gal)			144,130



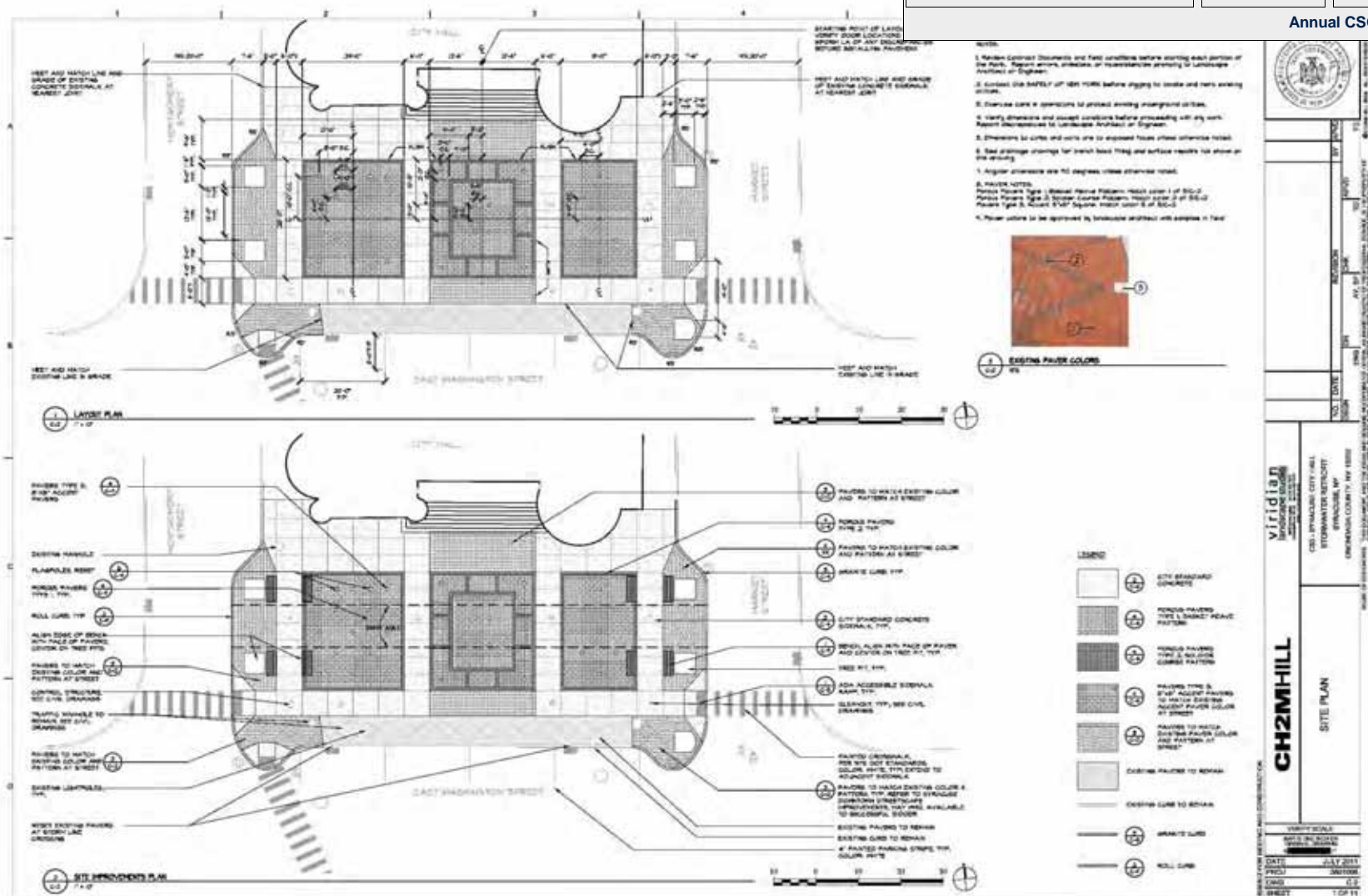
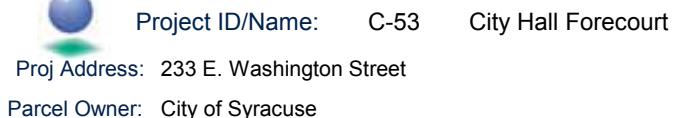


Project ID/Name: C-47 County Parking Lot at Townsend St. and Justice Center

Proj Address: 555 S. State Street

Parcel Owner: County of Onondaga





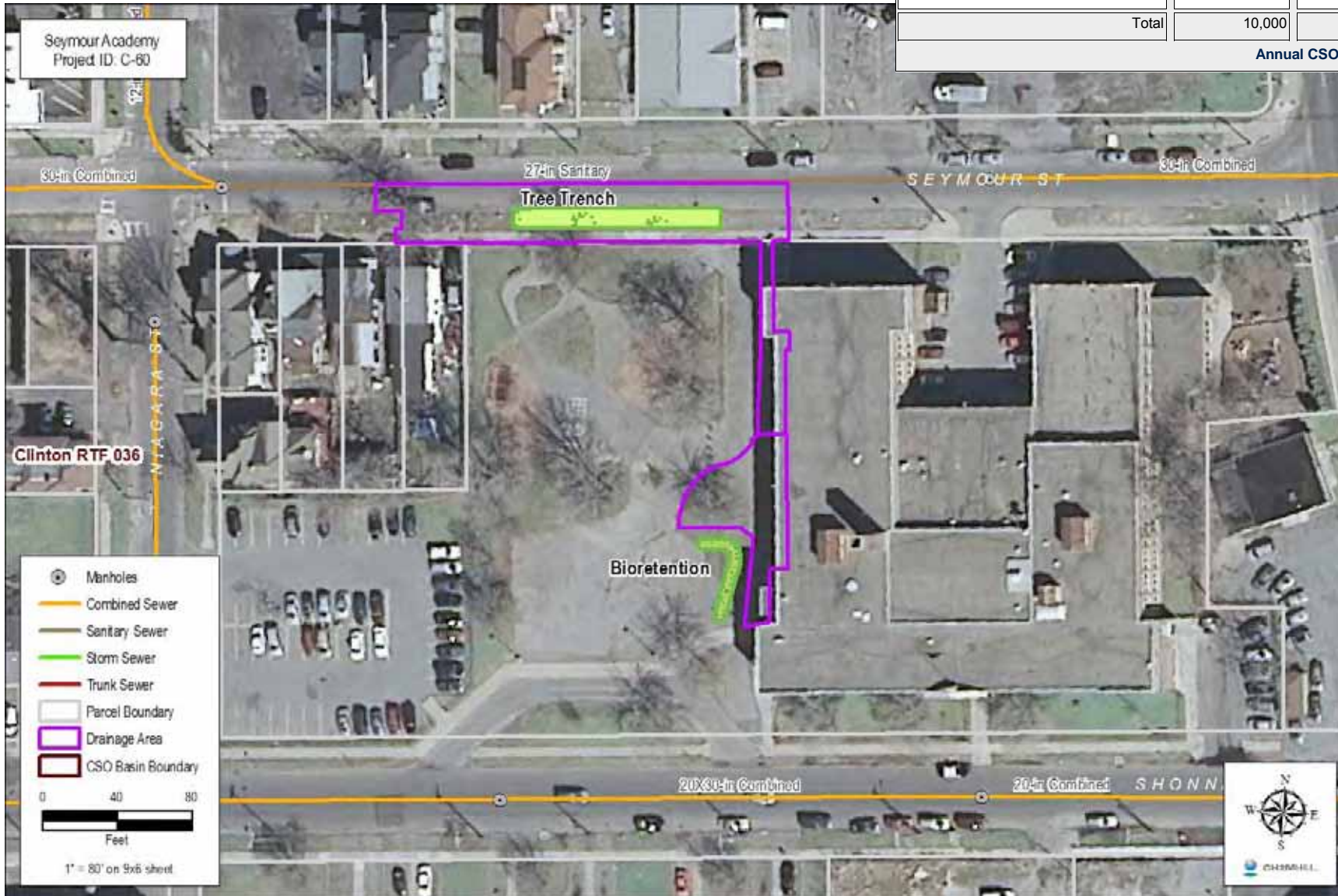


Project ID/Name: C-60 Green School: Seymour Academy Playground

Proj Address: 108 Shonnard Street

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	3,000	000	55,000
Tree Trench Standard	7,000	1,000	126,000
Total	10,000	1,000	181,000
Annual CSO Reduction (gal)			128,510



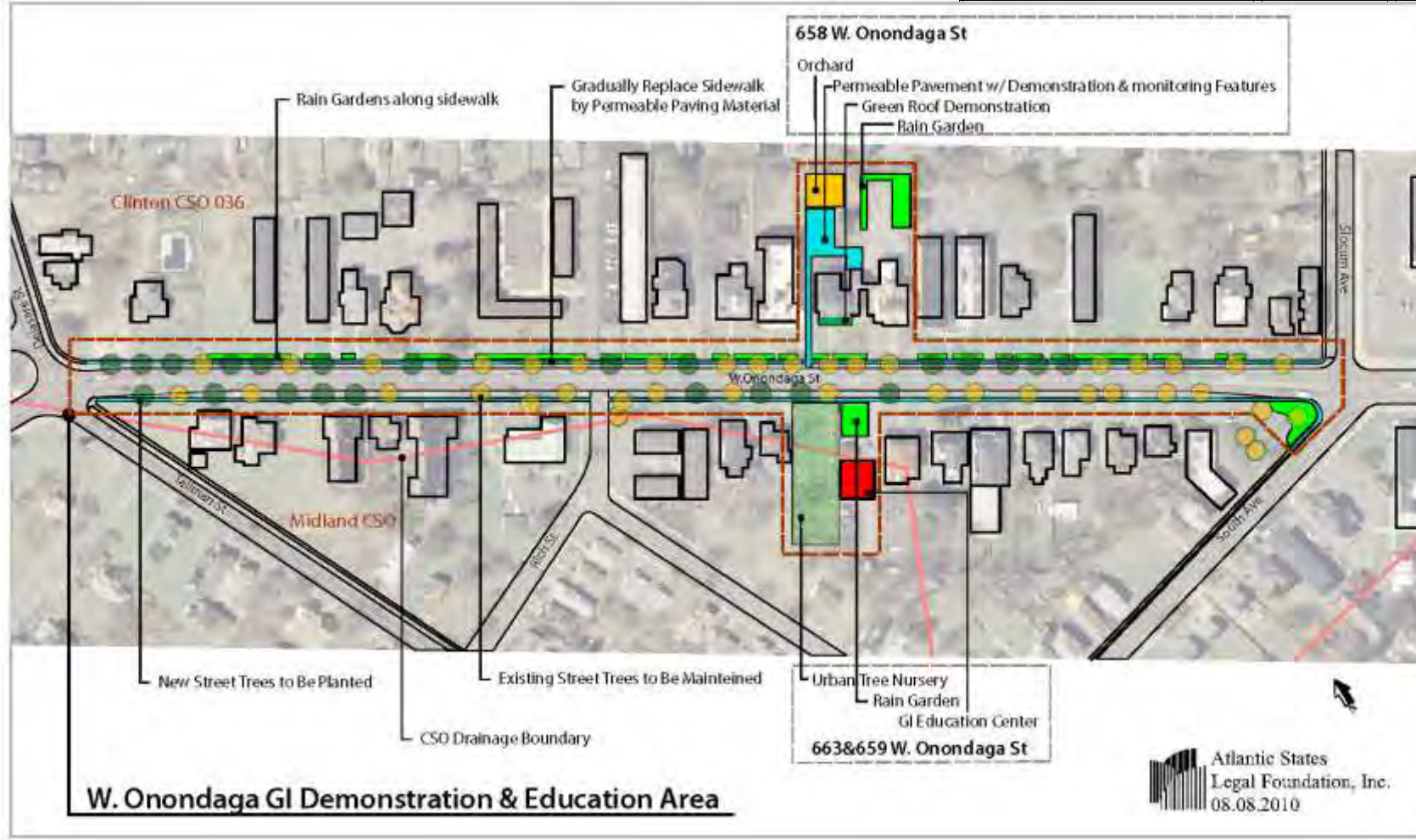


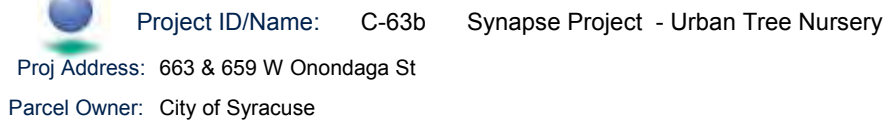
Project ID/Name: C-63a Synapse Project - 658 W Onondaga St

Proj Address: 659 W. Onondaga St

Parcel Owner:

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Parking Lot		7,600	
Green Roof		170	
Bioretention		400	
Total		8,170	





658 W. Onondaga St

Orchard

Permeable Pavement w/ Demonstration & monitoring Features

Green Roof Demonstration

Rain Garden

Rain Gardens along sidewalk

Gradually Replace Sidewalk by Permeable Paving Material

Clinton CSO 036

Midland CSO

New Street Trees to Be Planted

Existing Street Trees to Be Maintained

CSO Drainage Boundary

Urban Tree Nursery

Rain Garden

GI Education Center

663&659 W. Onondaga St

W. Onondaga St

South Ave

Atlantic States Legal Foundation, Inc. 08.08.2010

W. Onondaga GI Demonstration & Education Area

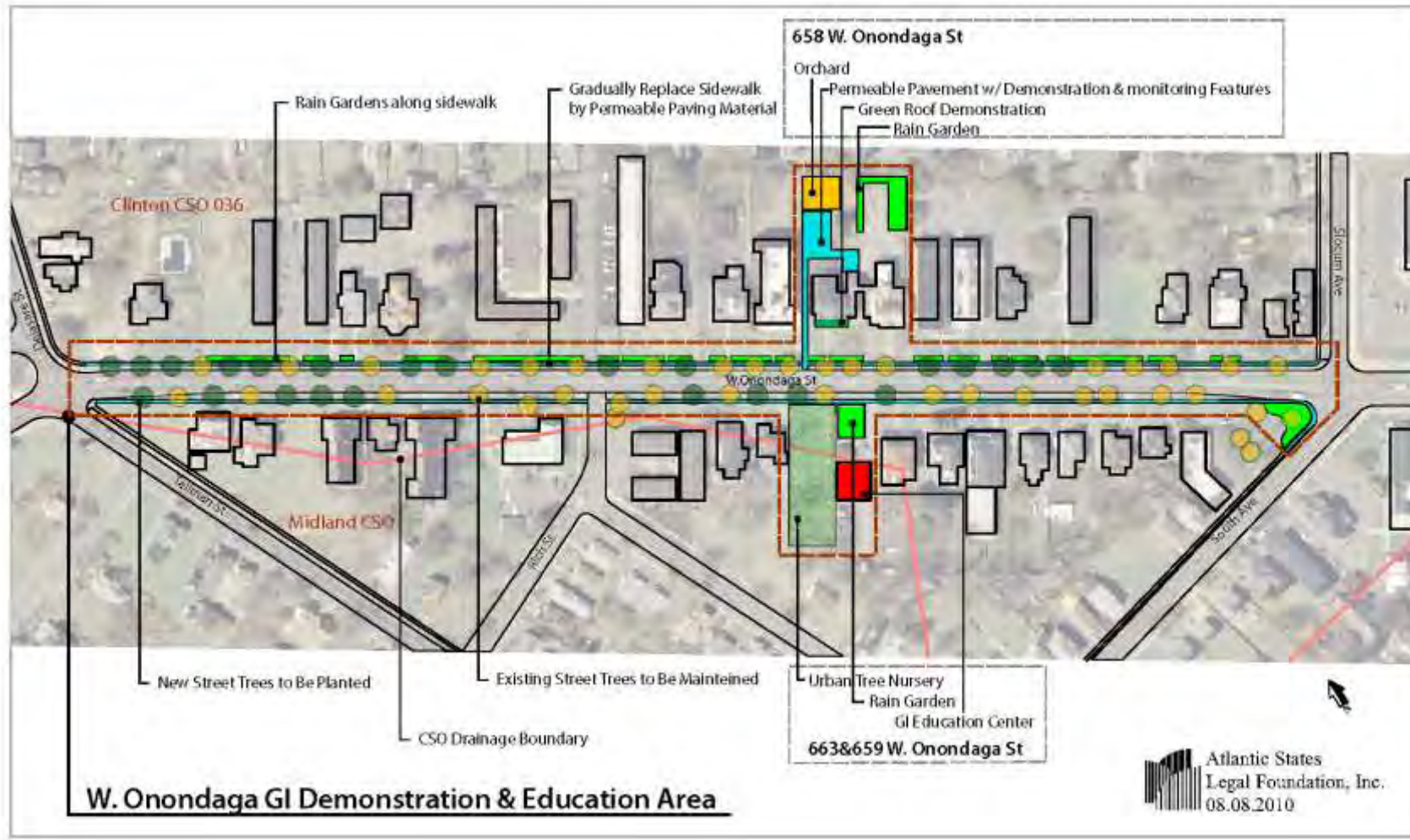


Project ID/Name: C-63c Synapse Project - W. Onondaga Street

Proj Address: 600 block W Onondaga St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Pervious Pavement Sidewalk	119,700	22,800	
Tree Trench		27,000	
Total	119,700	49,800	



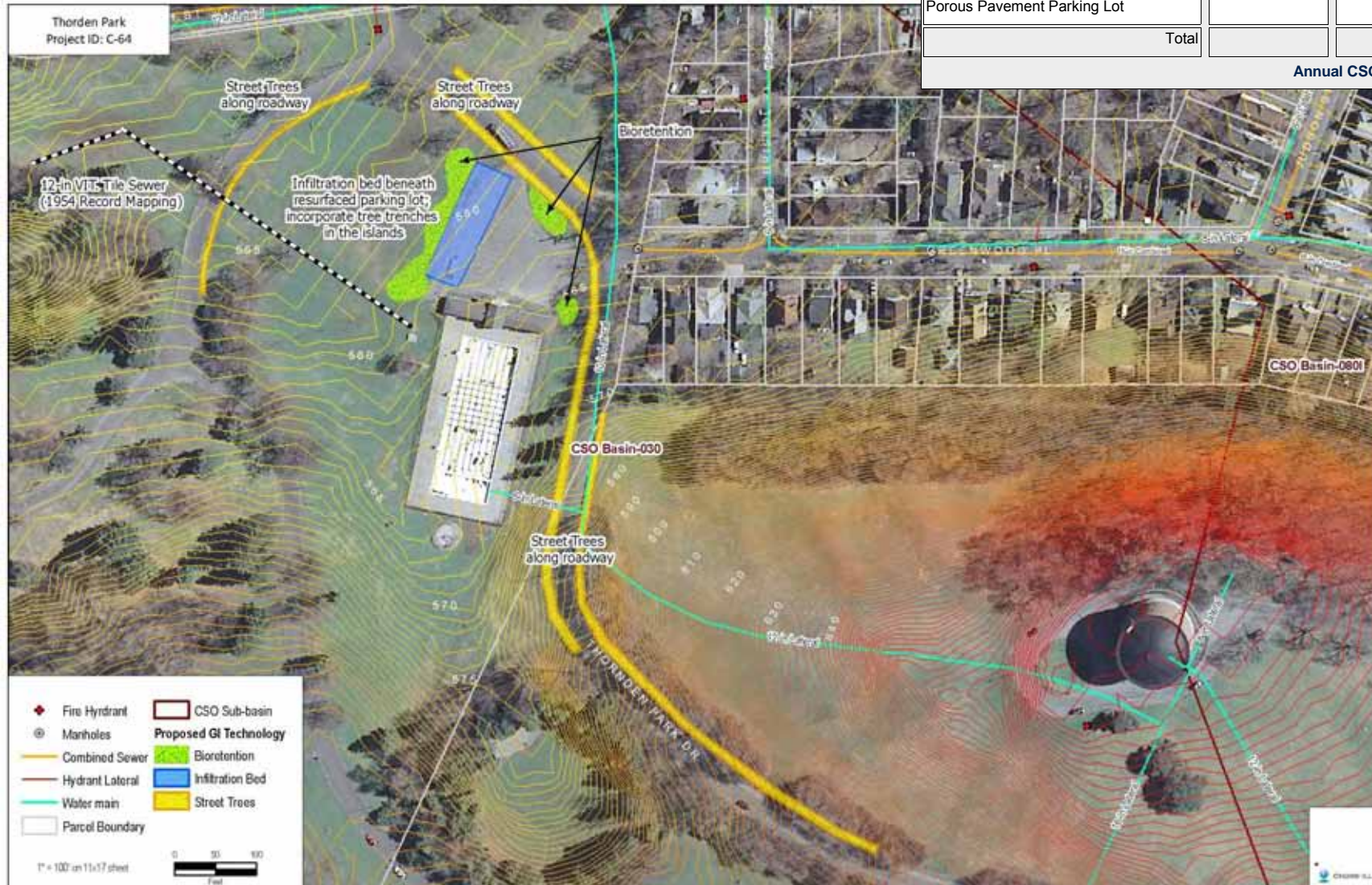


Project ID/Name: C-64 Green Park: Thornden Park

Proj Address: 501 Ostrom Ave

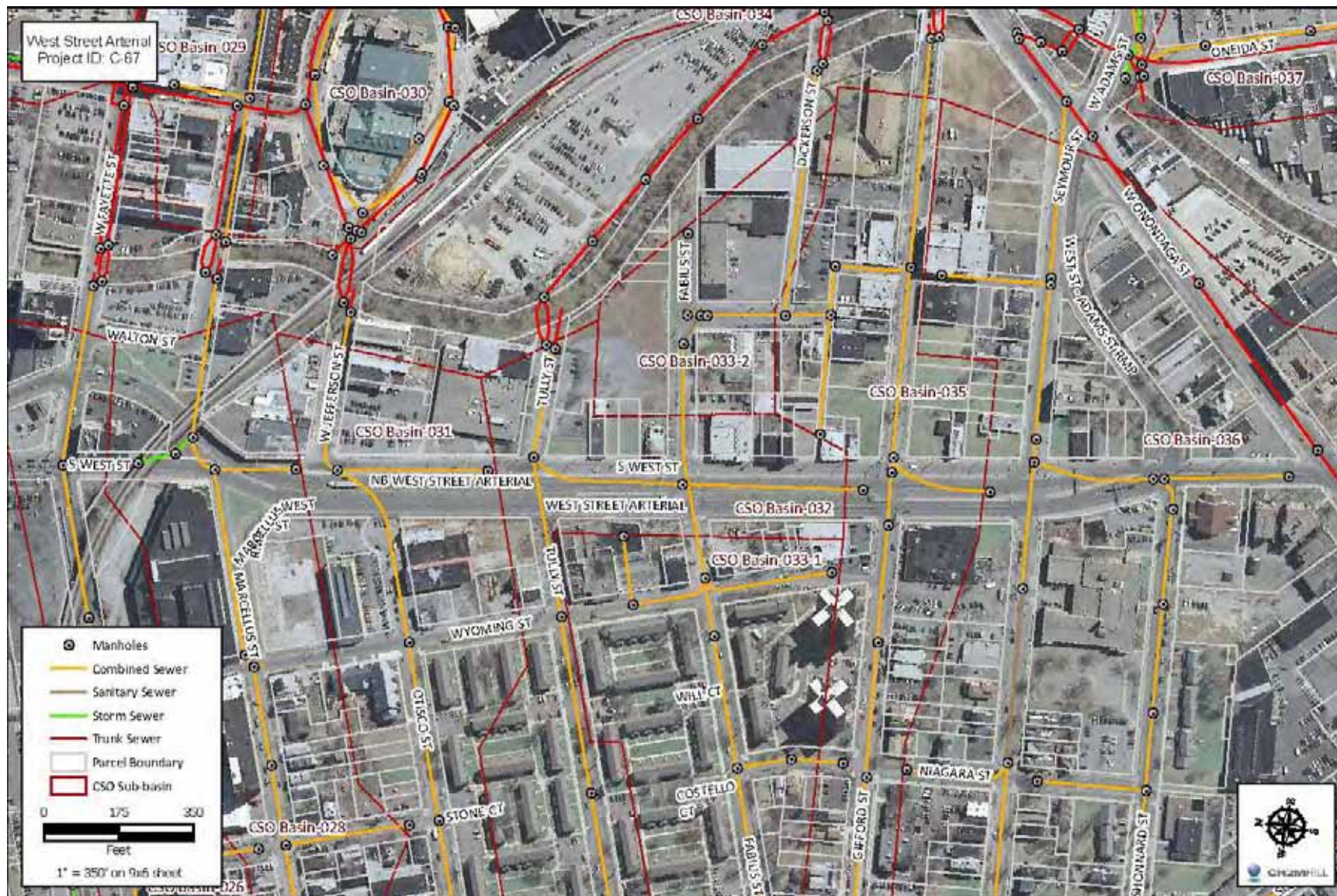
Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Street Trees			
Bioretention			
Porous Pavement Parking Lot			
Total			
Annual CSO Reduction (gal)			





Parcel Owner: City of Syracuse





Project ID/Name: C-68 Street Trees along Marcellus Ave

Proj Address: Marcellus from Geddes to XXY

Parcel Owner:





Project ID/Name: C-69 GIF#019 Viraj Salina, Inc.

Proj Address: 2703-2731 S. Salina St

Parcel Owner: Private



Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Trench	1,000	1,000	25,000
Total	1,000	1,000	25,000
Annual CSO Reduction (gal)			17,750



Project ID/Name: C-73 Onondaga Street Corridor/Gateway Project

Proj Address: From W Adams to South Ave

Parcel Owner: City of Syracuse

Green Technology

Impervious
Area (SF)

Green Infrastructure
Area (SF or Gal)

Annual Capture
(gal)

Green Street

Total

Annual CSO Reduction (gal)



General Notes

Note 1: Remove right-turn-only lane (West St to W Onondaga St), and use the space to create the bio-retention, receiving runoff from streets and adjacent properties.

Note 2: Turn curbed & paved street median into vegetated swale



Scale: 1" = 50'

Project: Onondaga Street Corridor Gateway Project

Prepared by: Atlantic States Legal Foundation

Drawn by: W. Green
Date: 06/13/2019
Sheet: 0001

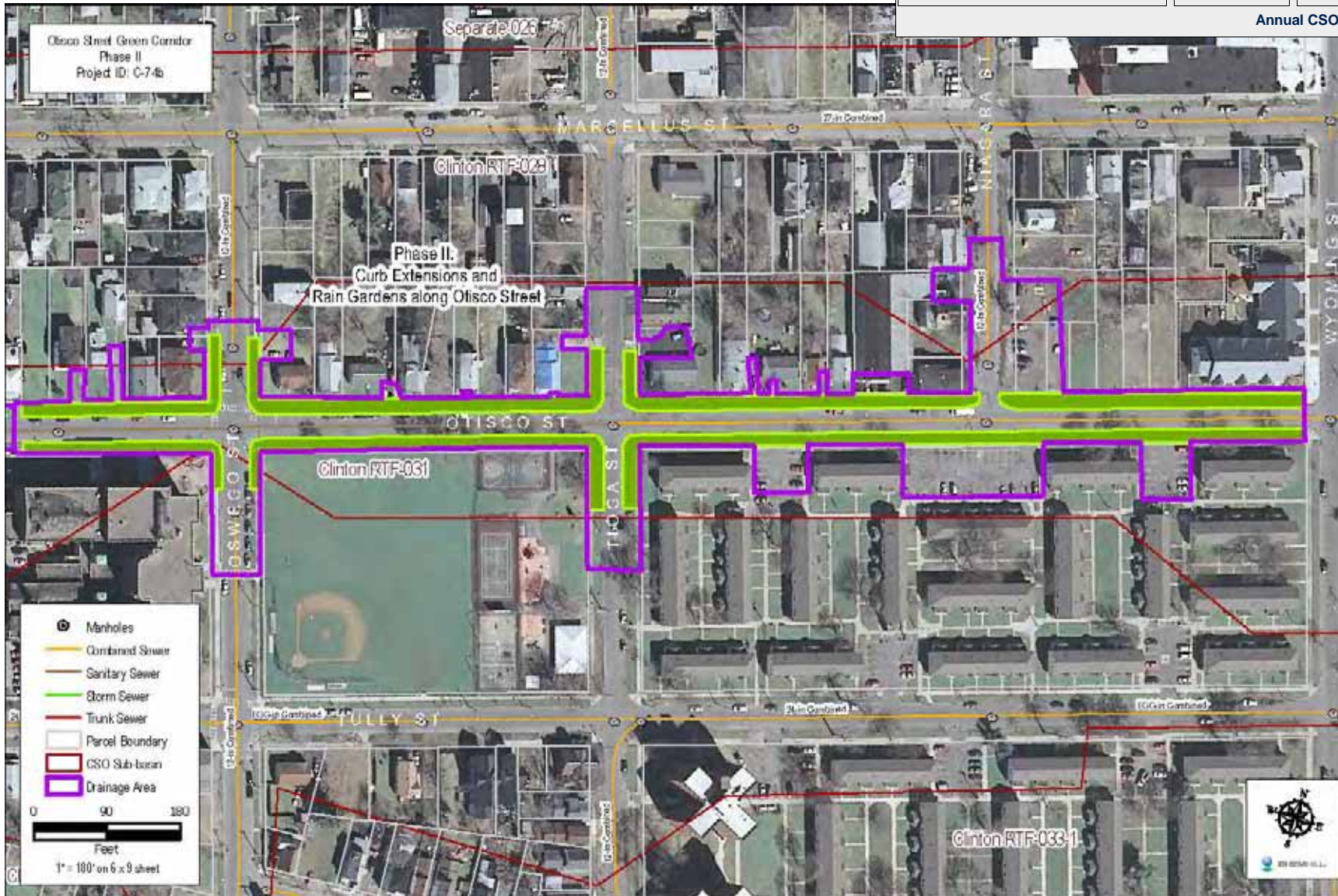


Project ID/Name: C-74b Otisco Street Green Corridor Phase 2

Proj Address: From Oswego St to Wyoming St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Street	184,000		3,241,000
Total	184,000		3,241,000
Annual CSO Reduction (gal)			2,301,110



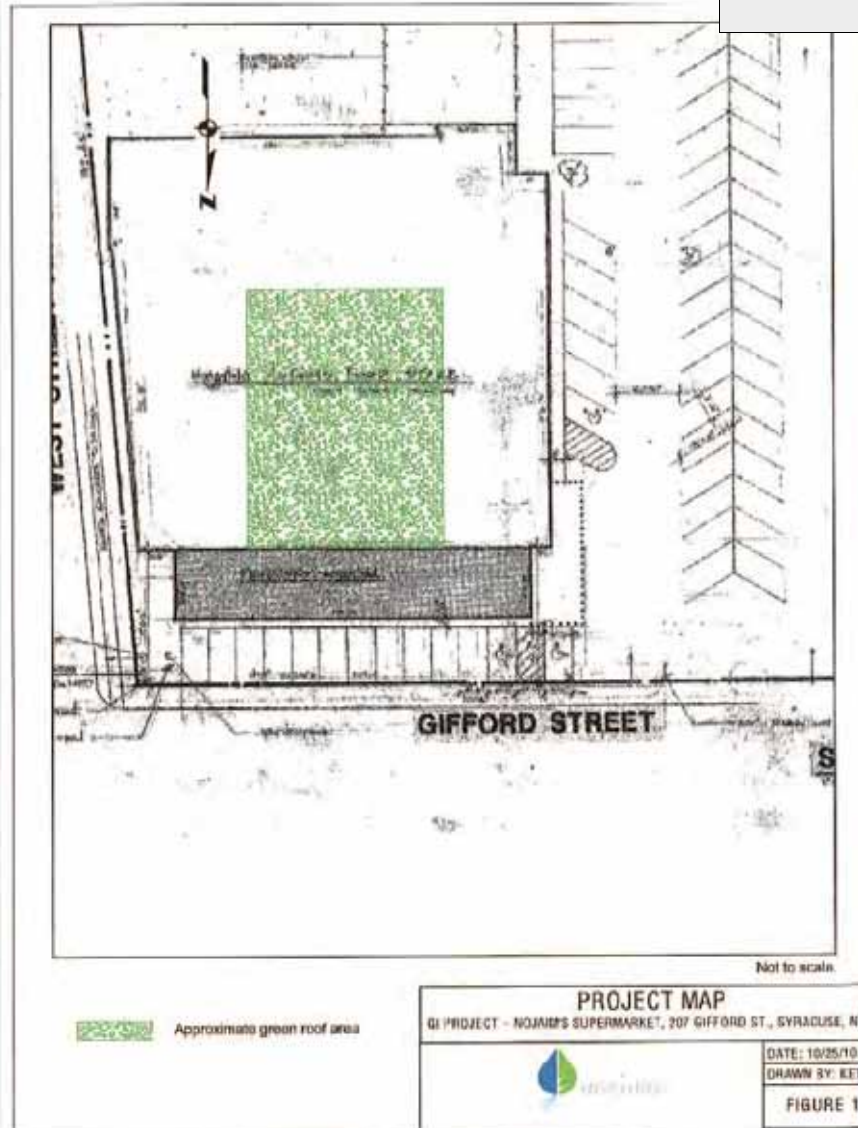


Project ID/Name: C-76 GIF#021 Alexander West Properties, LLC

Proj Address: 307 Gifford Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	5,000	5,000	85,000
Total	5,000	5,000	85,000
Annual CSO Reduction (gal)			60,350





Project ID/Name: C-80 SFD Firehouse #1 at State St

Proj Address: 900 S State St

Parcel Owner: City of Syracuse





Project ID/Name: C-81 SFD Firehouse #5 Geddes St

Proj Address: 110 N Geddes St

Parcel Owner: City of Syracuse





Project ID/Name: C-82 SFD Firehouse #6 at West St

Proj Address: 601 S West St

Parcel Owner: City of Syracuse





Project ID/Name: C-83 SFD Firehouse #7 at Fayette St

Proj Address: 1039 E Fayette St

Parcel Owner: City of Syracuse

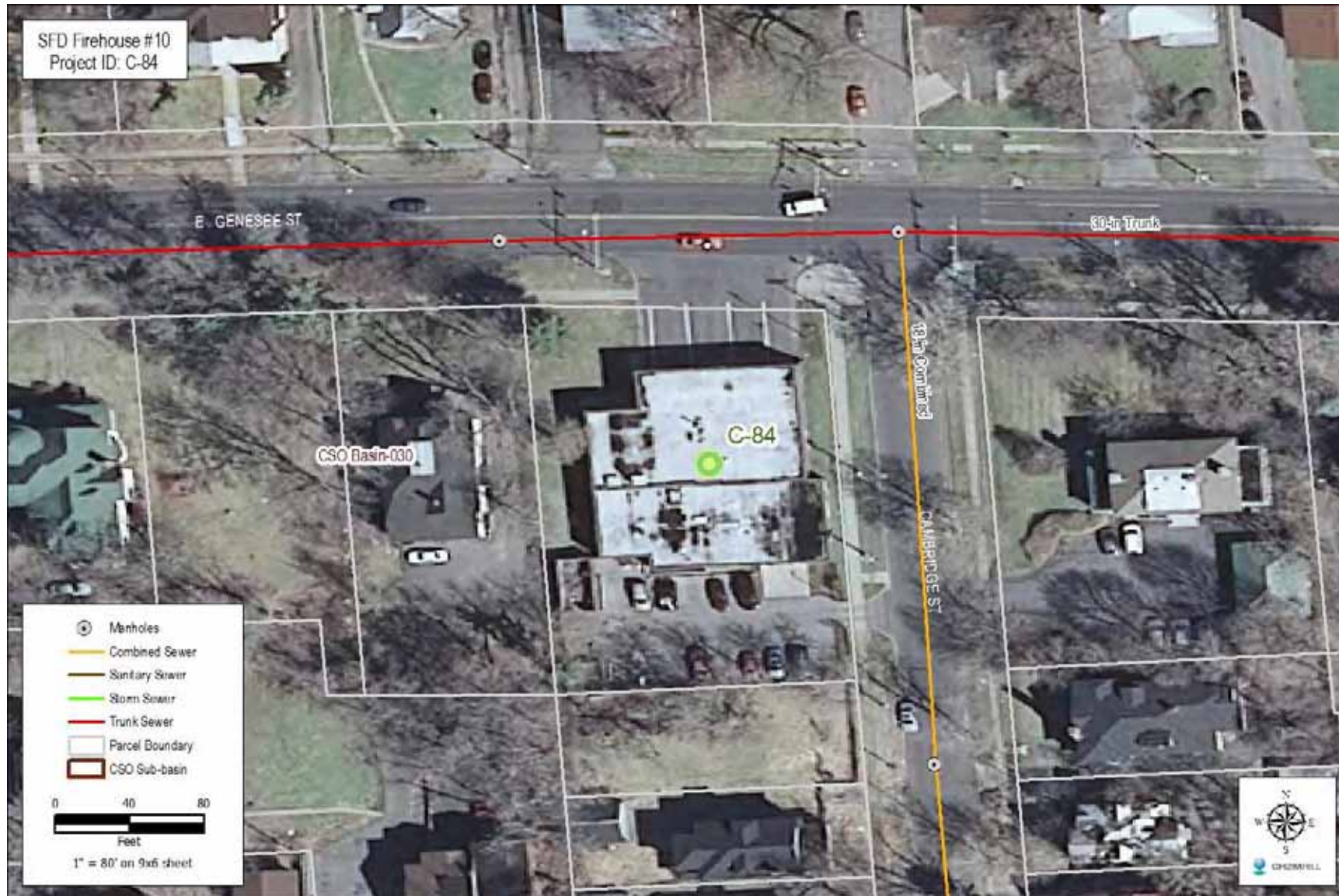




Project ID/Name: C-84 SFD Firehouse #10 - Genesee St

Proj Address: 2030 E Genesee Street

Parcel Owner: City of Syracuse





Project ID/Name: C-86 Bank Alley Enhancement

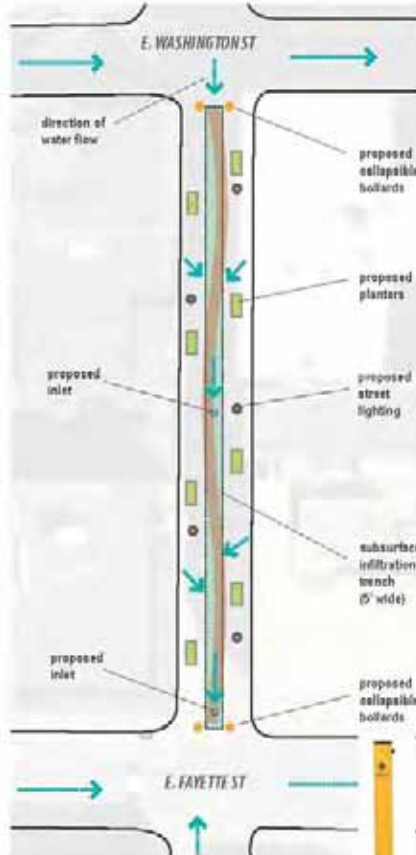
Proj Address: Alley between E Washington and E Fayette St

Parcel Owner: City of Syracuse

Bank Alley Enhancement Project C-86



Existing Conditions



Concept Plan: Green Alley Enhancement



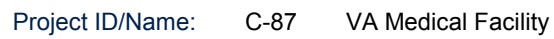
Proposed GI Technology

Green Technology	Impervious Area (SF)	Green Infrastructure Size (SF)	Annual Capture (gal)
Infiltration Trench	7,000 SF	1,000 SF	118,000 gal
Total	7,000 SF	1,000 SF	118,000 gal
Annual CSO Reduction (gal)			118,000 gal

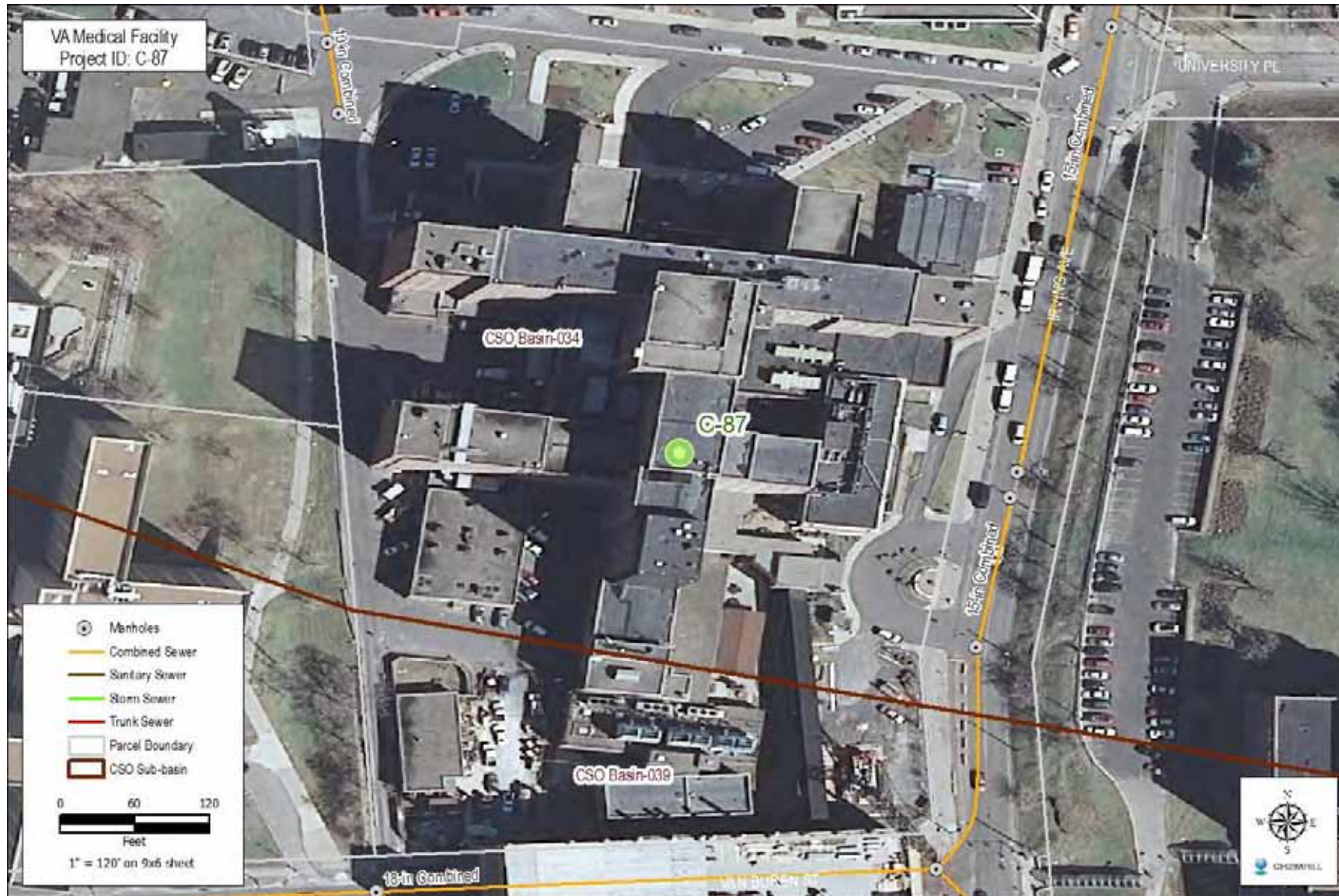


Perspective View of Proposed Alley Enhancement

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Infiltration Trench	11,000	1,000	186,000
Infiltration Trench	25,000	3,000	434,000
Total	36,000	4,000	620,000
Annual CSO Reduction (gal)			440,200



Parcel Owner: USA



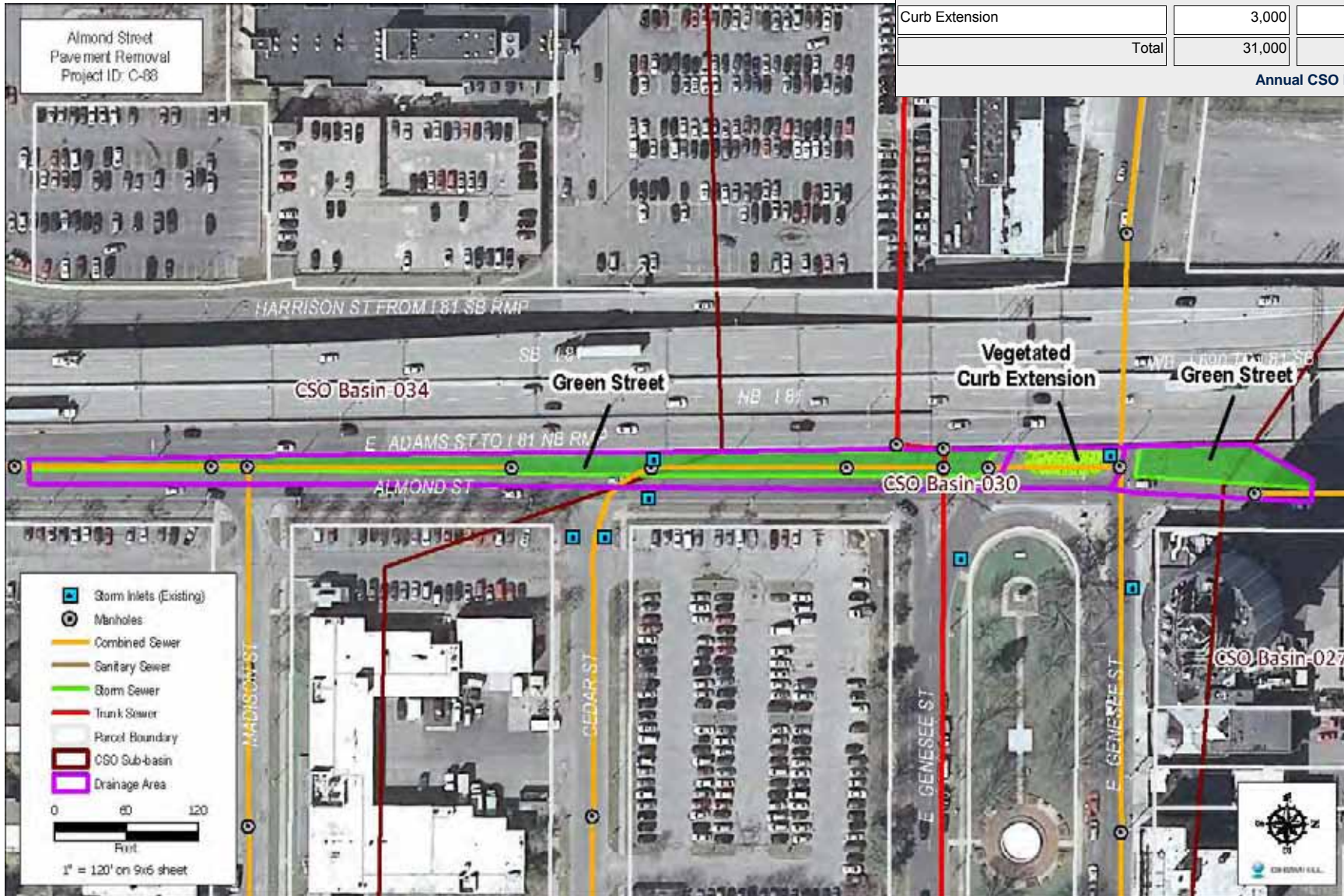


Project ID/Name: C-88 Almond Street Pavement Removal

Proj Address: Intersection of Almond and East Genesee

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Street	6,000	4,000	108,000
Green Street	22,000	12,000	393,000
Curb Extension	3,000	2,000	59,000
Total	31,000	18,000	560,000
Annual CSO Reduction (gal)			397,600



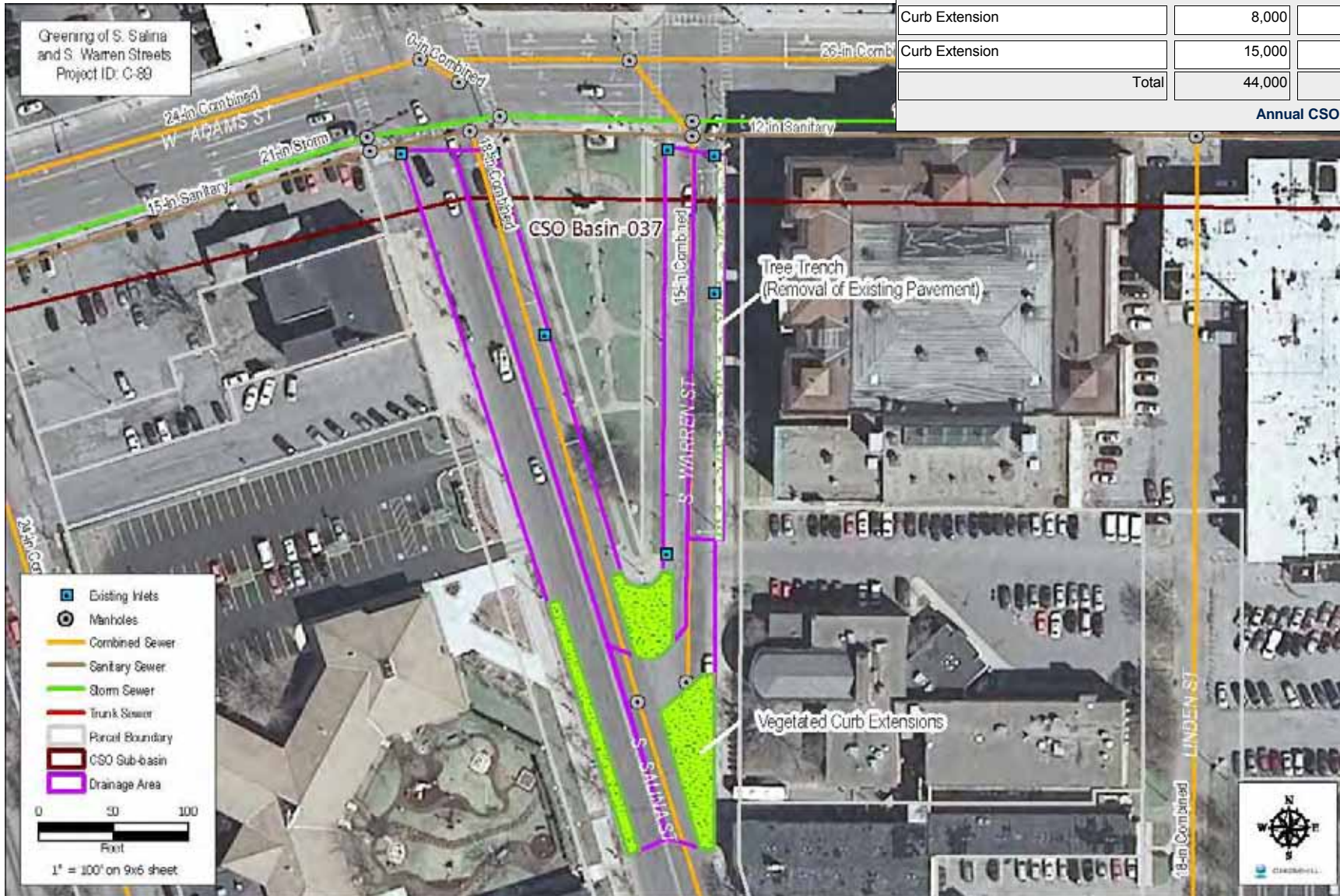


Project ID/Name: C-89 Greening of S Salina and S Warren Intersection

Proj Address: 600 block S Salina St and 700 block S Warren St

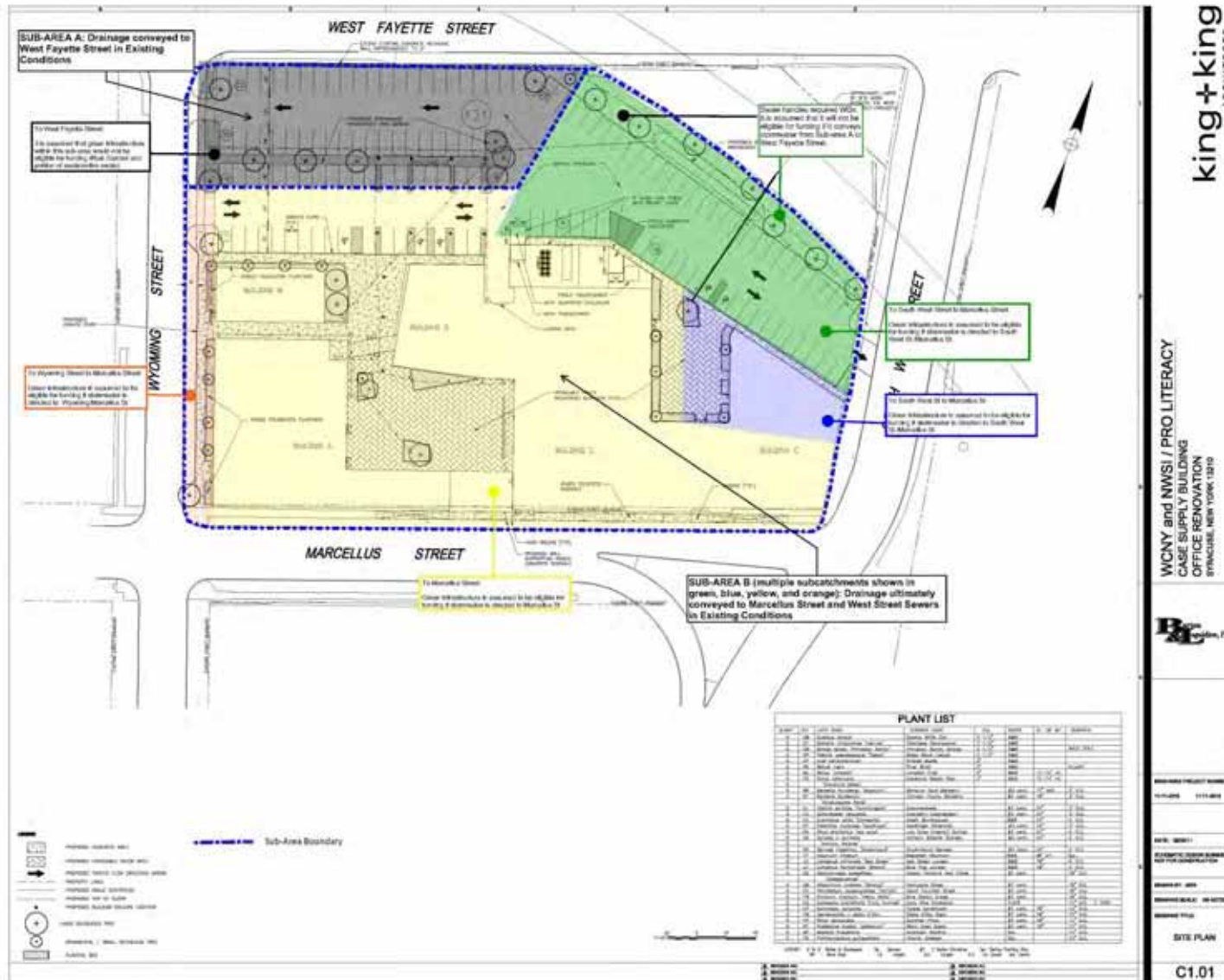
Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Tree Trench Standard	6,000	1,000	98,000
Curb Extension	15,000	2,000	268,000
Curb Extension	8,000	3,000	136,000
Curb Extension	15,000	1,000	264,000
Total	44,000	7,000	766,000
Annual CSO Reduction (gal)			543,860





Parcel Owner: Private





Project ID/Name: C-94 GIF#032 Consuela's Westside Taqueria and BBQ

Proj Address: 523 Marcellus St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	2,000	000	26,000
Porous Pavement Parking Lot	2,000	3,000	34,000
Street Trees	1,000		14,000
Pavement Removal	2,000	2,000	30,000
Total	7,000	5,000	104,000
Annual CSO Reduction (gal)			73,840

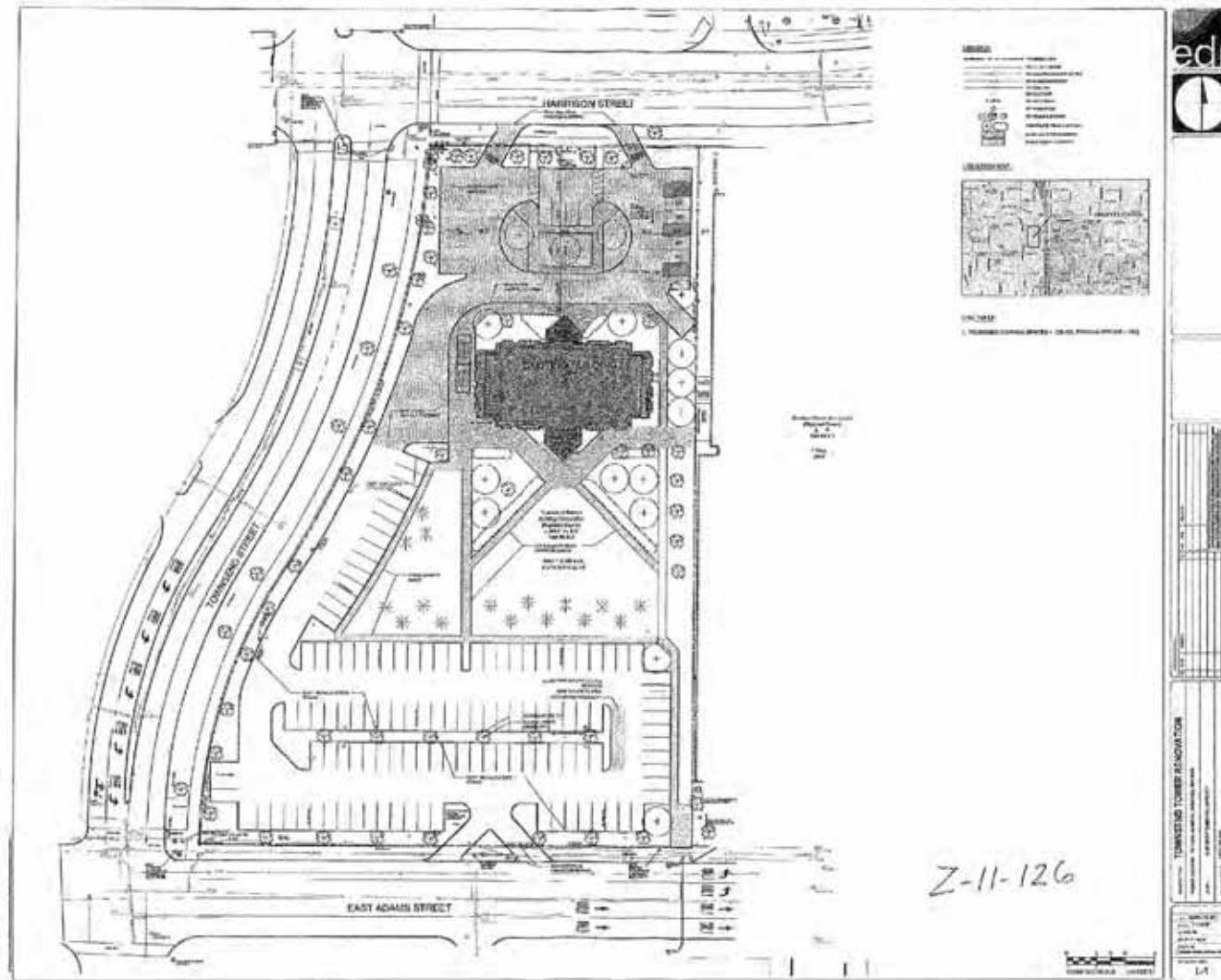




Project ID/Name: C-95 SUNY Townsend Tower

Proj Address: 507-523 E Adams Street

Parcel Owner: Private





Project ID/Name: C-97 Marcellus Street Parking Alignment

Proj Address: 100 block Marcellus St, b/w Wyoming and West

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Curb Extension			
Total			
Annual CSO Reduction (gal)			



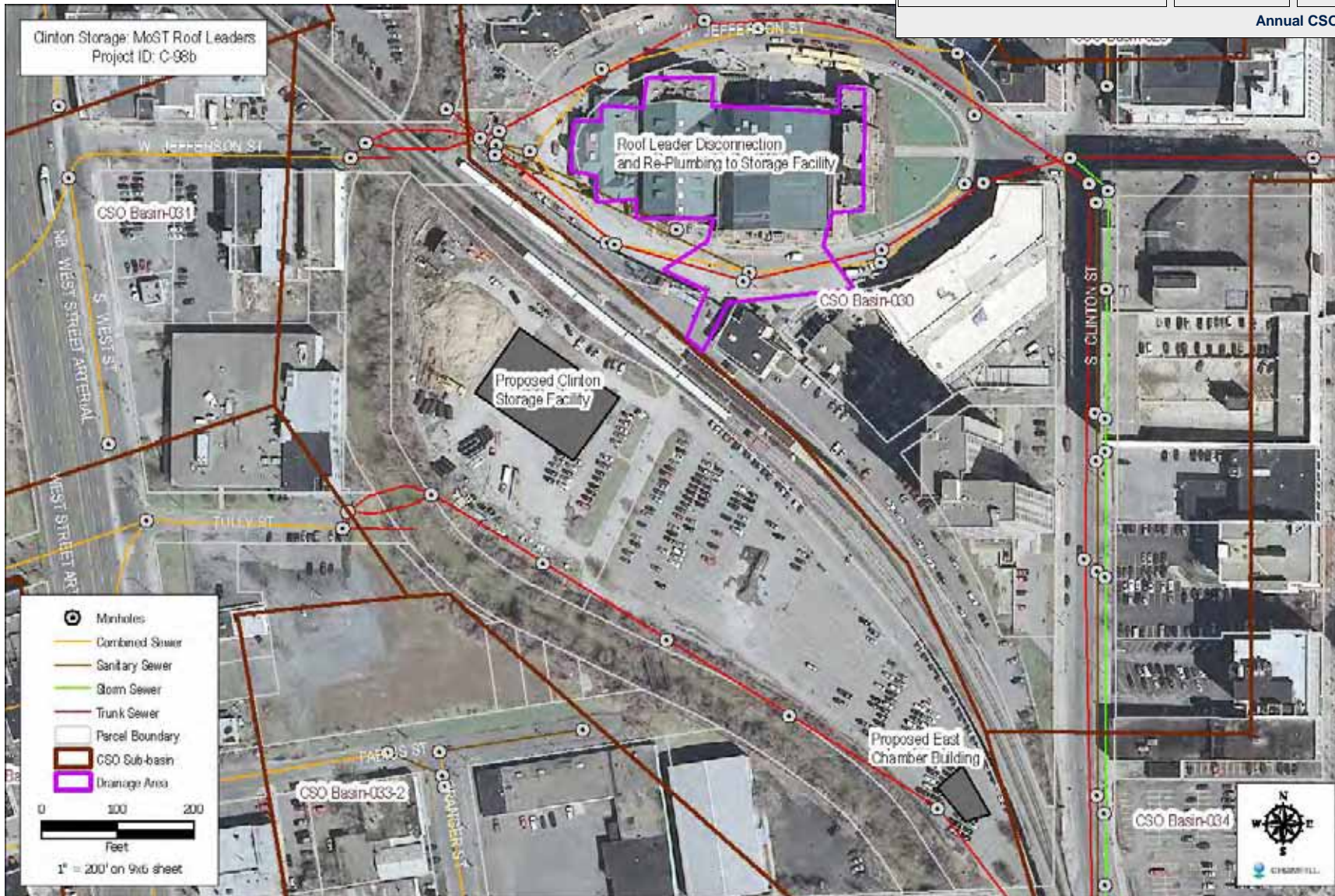


Project ID/Name: C-98b Clinton Storage: MoST Roof Leaders

Proj Address: Street North to West Jefferson (Trolley Lot)

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
GI Placeholder	77,000		1,356,000
Total	77,000		1,356,000
Annual CSO Reduction (gal)			962,760





Project ID/Name: C-100 Everson Garage / Plaza

Proj Address: 788 S Townsend St

Parcel Owner: County of Onondaga

Green Technology

Impervious
Area (SF)

Green Infrastructure
Area (SF or Gal)

Annual Capture
(gal)

Cistern/Rain Barrel

74,000

1,309,000

Total

74,000

1,309,000

Annual CSO Reduction (gal)

929,390



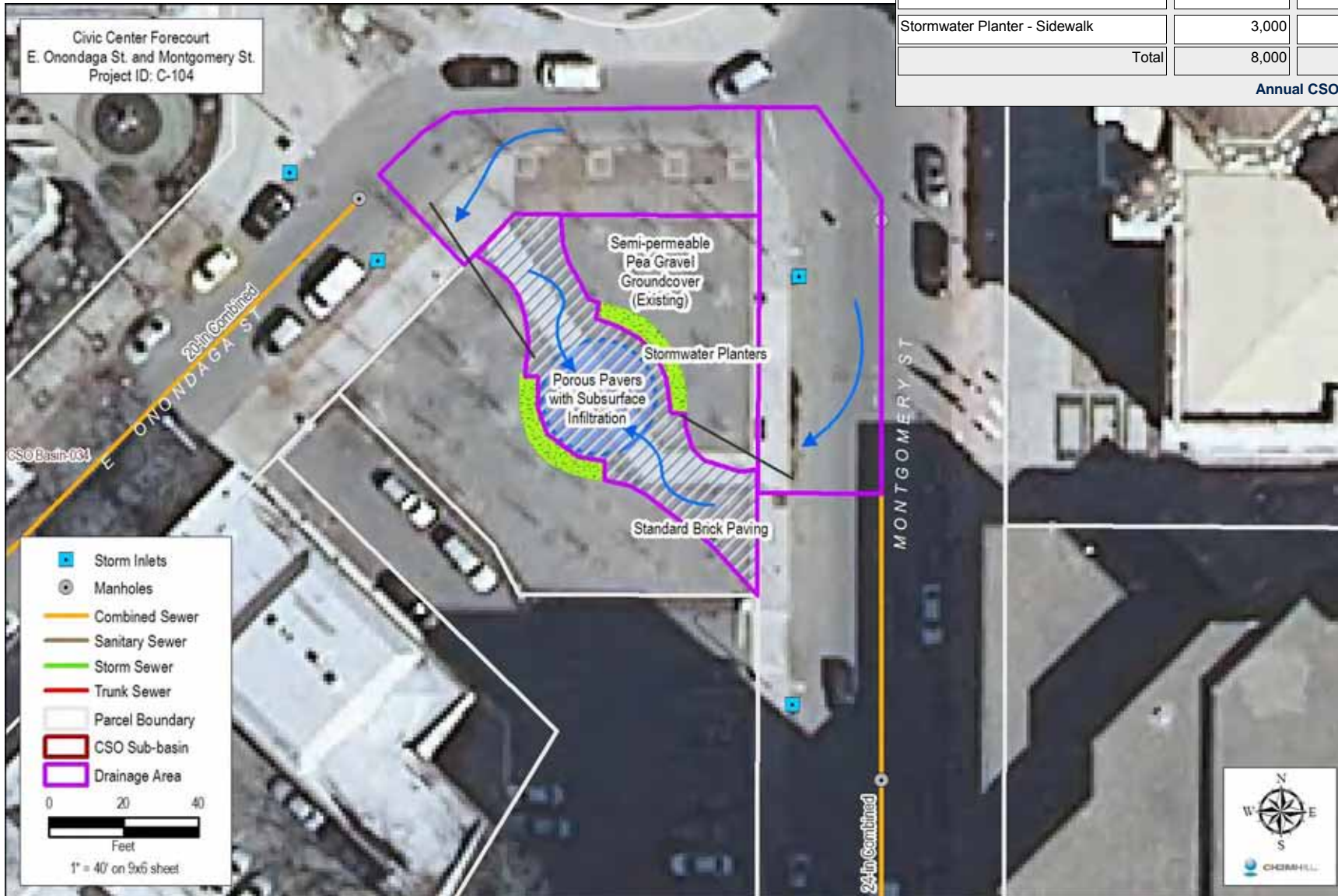


Project ID/Name: C-104 Civic Center Forecourt

Proj Address: E Onondaga St. and Montgomery St.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Sidewalk	2,000	1,000	44,000
Stormwater Planter - Sidewalk	3,000	000	53,000
Stormwater Planter - Sidewalk	3,000	000	53,000
Total	8,000	1,000	150,000
Annual CSO Reduction (gal)			106,500



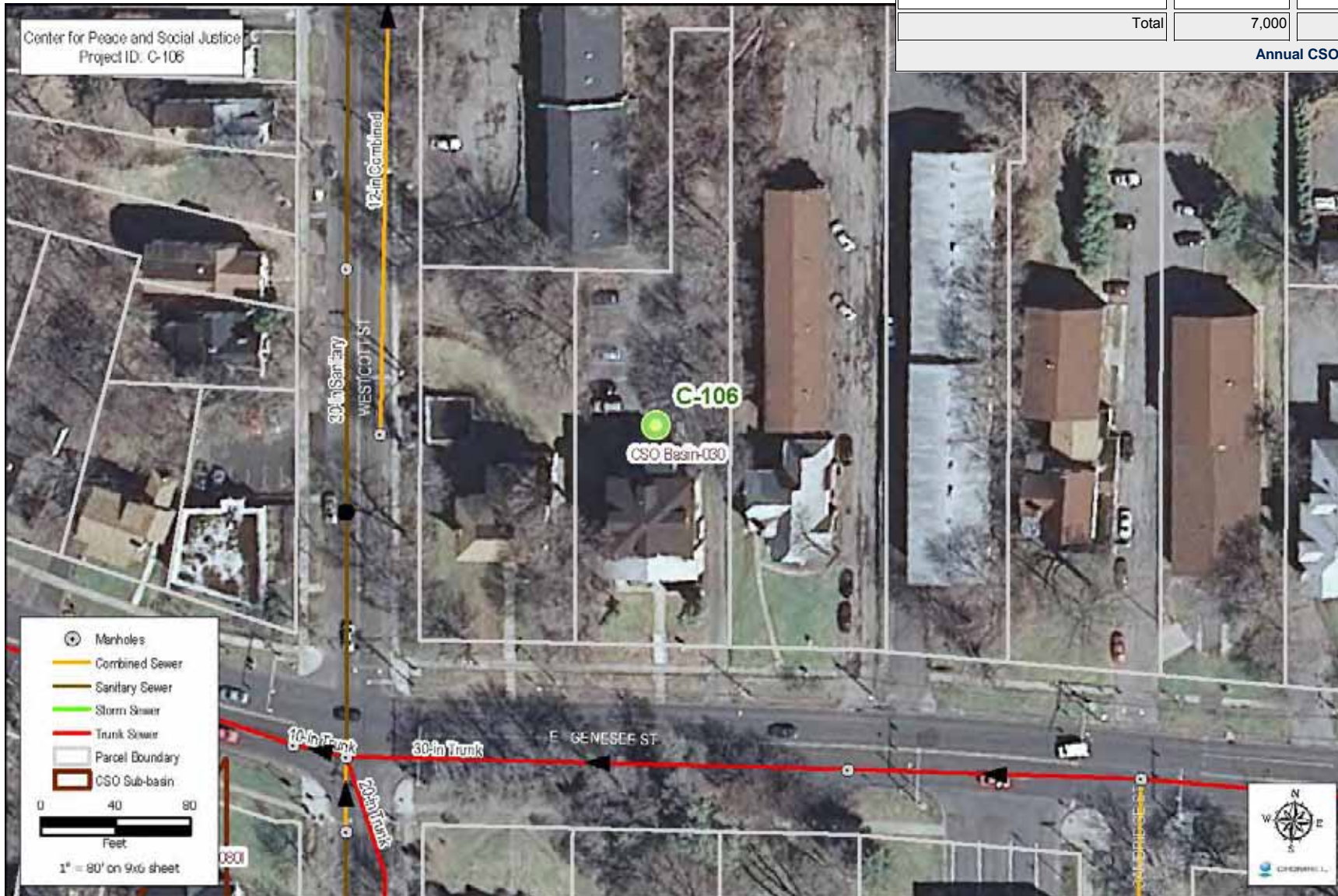


Project ID/Name: C-106 GIF#042 Center for Peace and Social Justice

Proj Address: 2013 E. Genesee St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	6,000	4,000	114,000
Bioretention	1,000	000	18,000
Total	7,000	4,000	132,000
Annual CSO Reduction (gal)			93,720



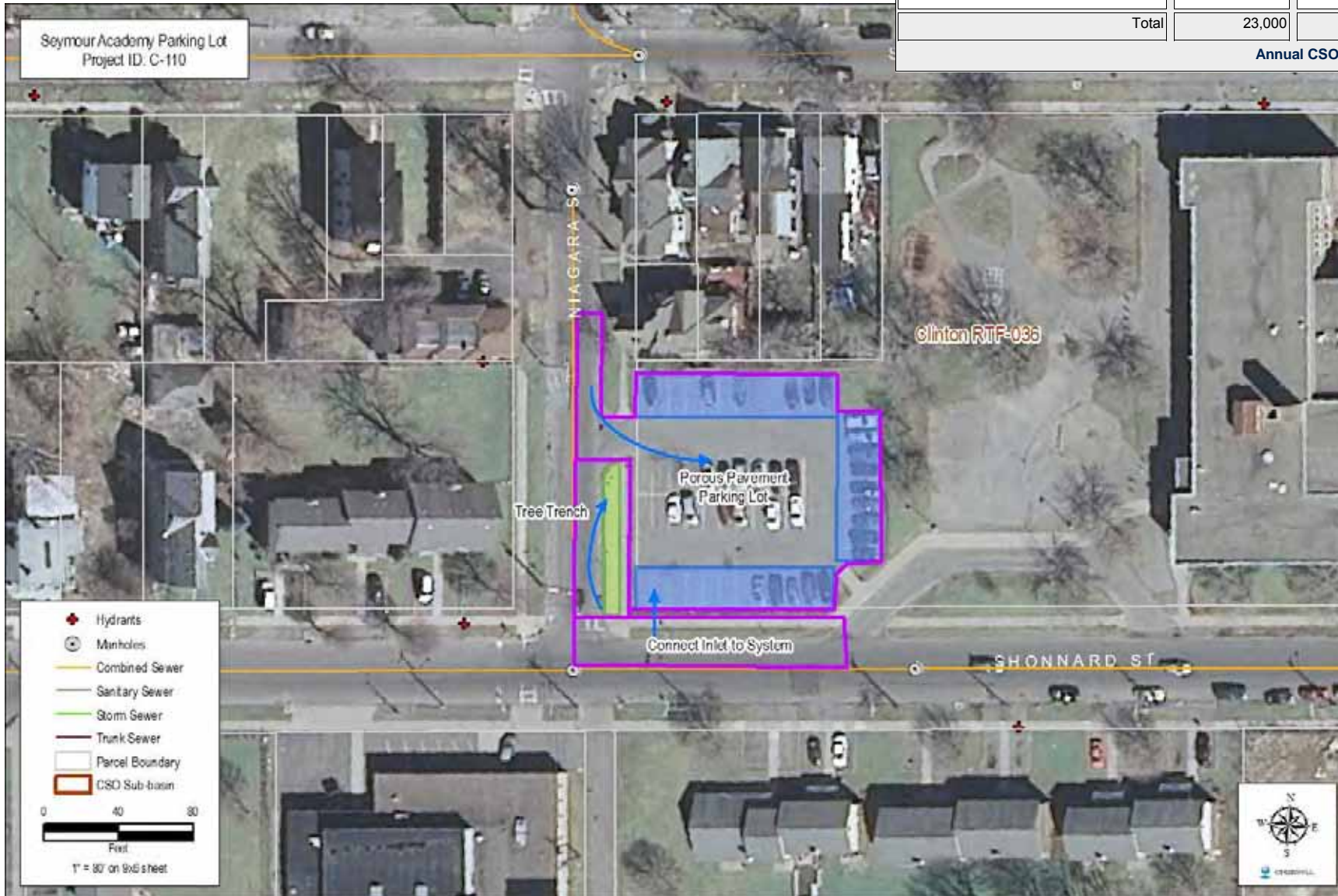


Project ID/Name: C-110 Seymour Academy Parking Lot

Proj Address: 180 Shonnard St

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	2,000	1,000	43,000
Porous Pavement Parking Lot	21,000	7,000	365,000
Total	23,000	8,000	408,000
Annual CSO Reduction (gal)			289,680

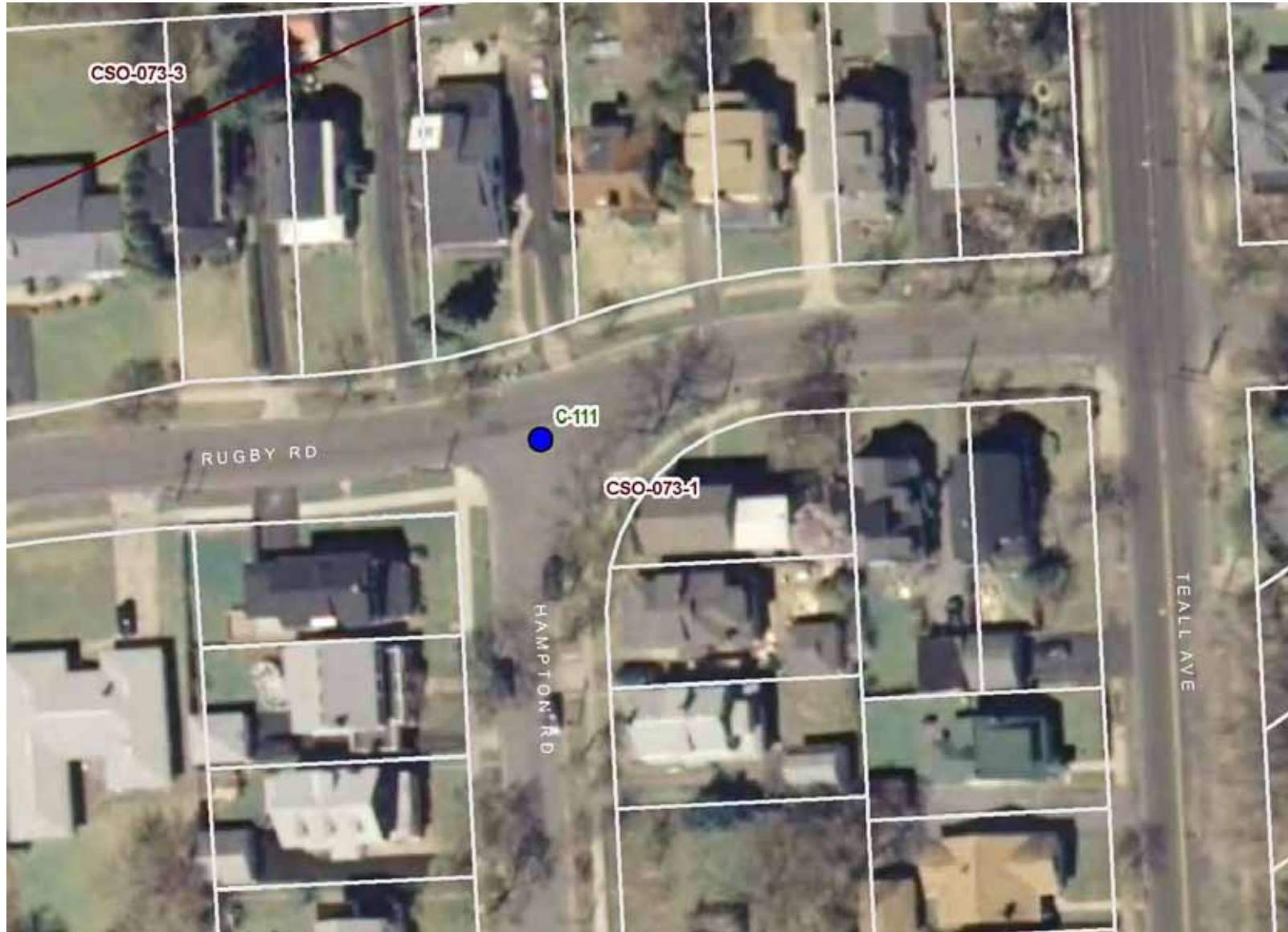




Project ID/Name: C-111 Pavement Removal: Rugby Rd and Hampton Rd

Proj Address: Rugby Rd and Hampton Rd.

Parcel Owner: City of Syracuse





Project ID/Name: C-112 Green School: Lincoln Jr. High School

Proj Address: James St and Hampton Rd

Parcel Owner: Syracuse City School District

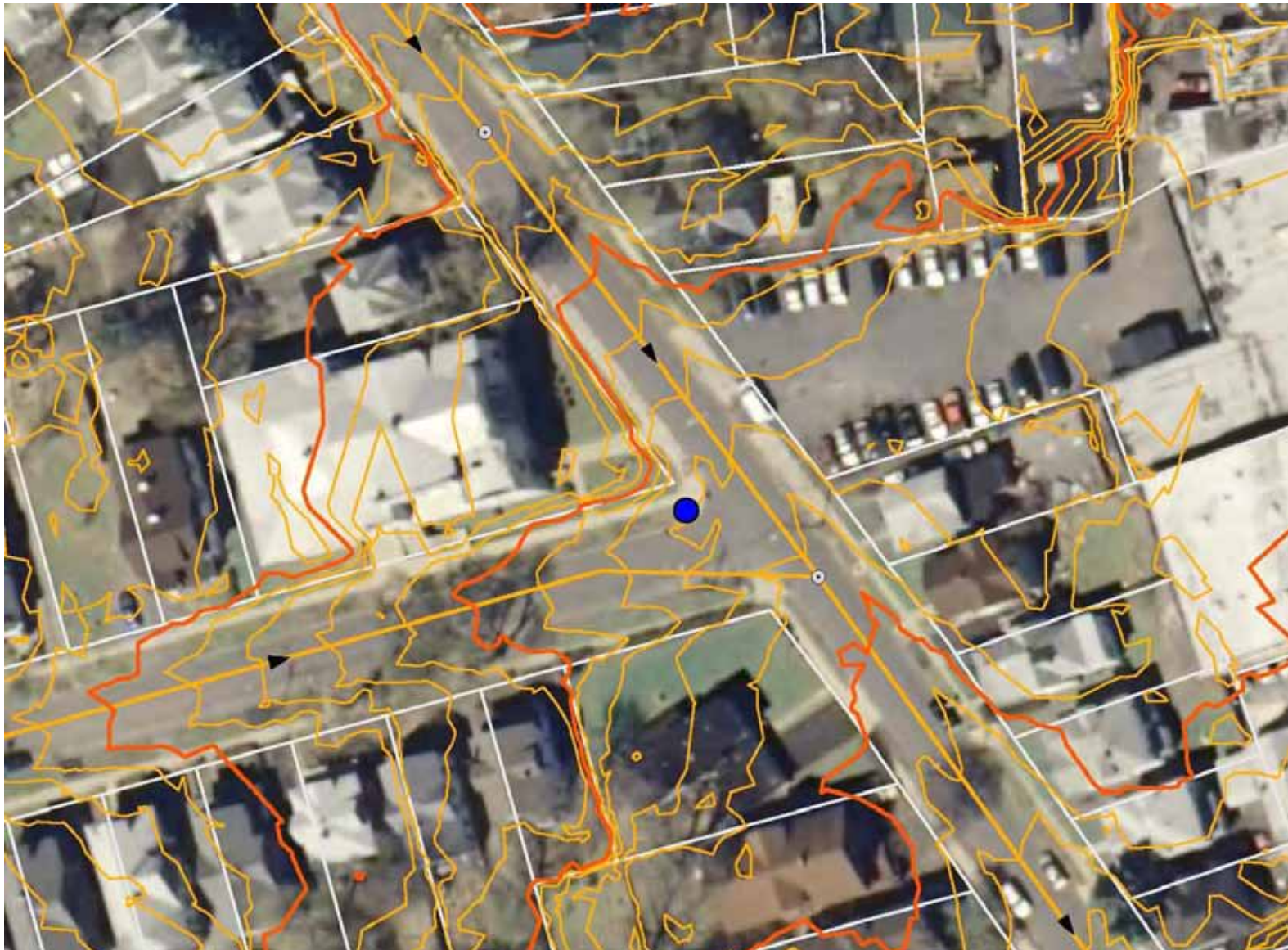




Project ID/Name: C-113 Green Street: S. Beech and Judson

Proj Address: S. Beech and Judson Streets

Parcel Owner: City of Syracuse



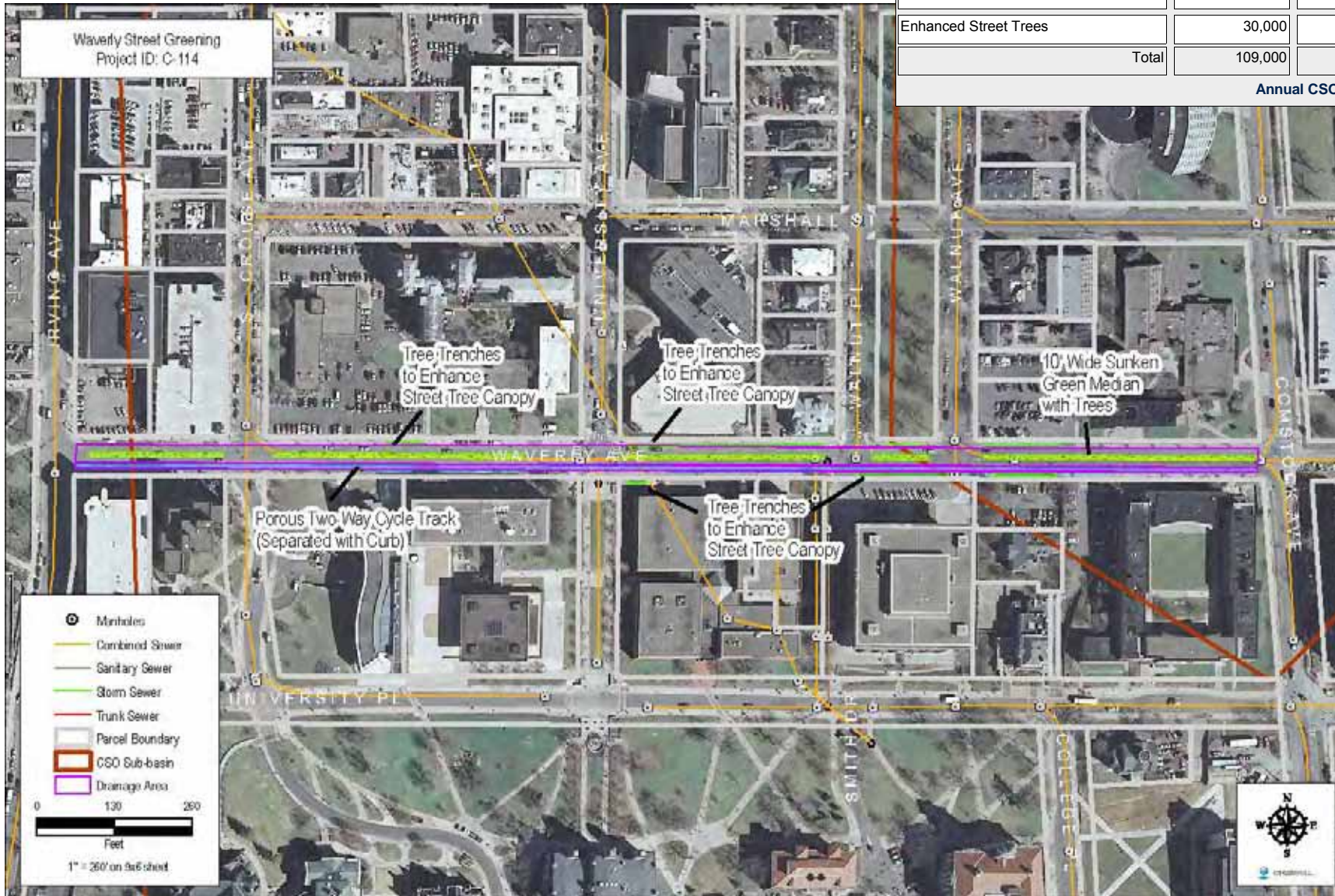


Project ID/Name: C-114 Green Street: Waverly St.

Proj Address: Waverly Street from Irving to Comstock St.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Stormwater Planter - Sidewalk	60,000	16,000	1,057,000
Porous Pavement Sidewalk	19,000	19,000	335,000
Enhanced Street Trees	30,000	6,000	528,000
Total	109,000	41,000	1,920,000
Annual CSO Reduction (gal)			1,363,200





Project ID/Name: C-115 Hanover Square

Proj Address:


Parcel Owner: City of Syracuse



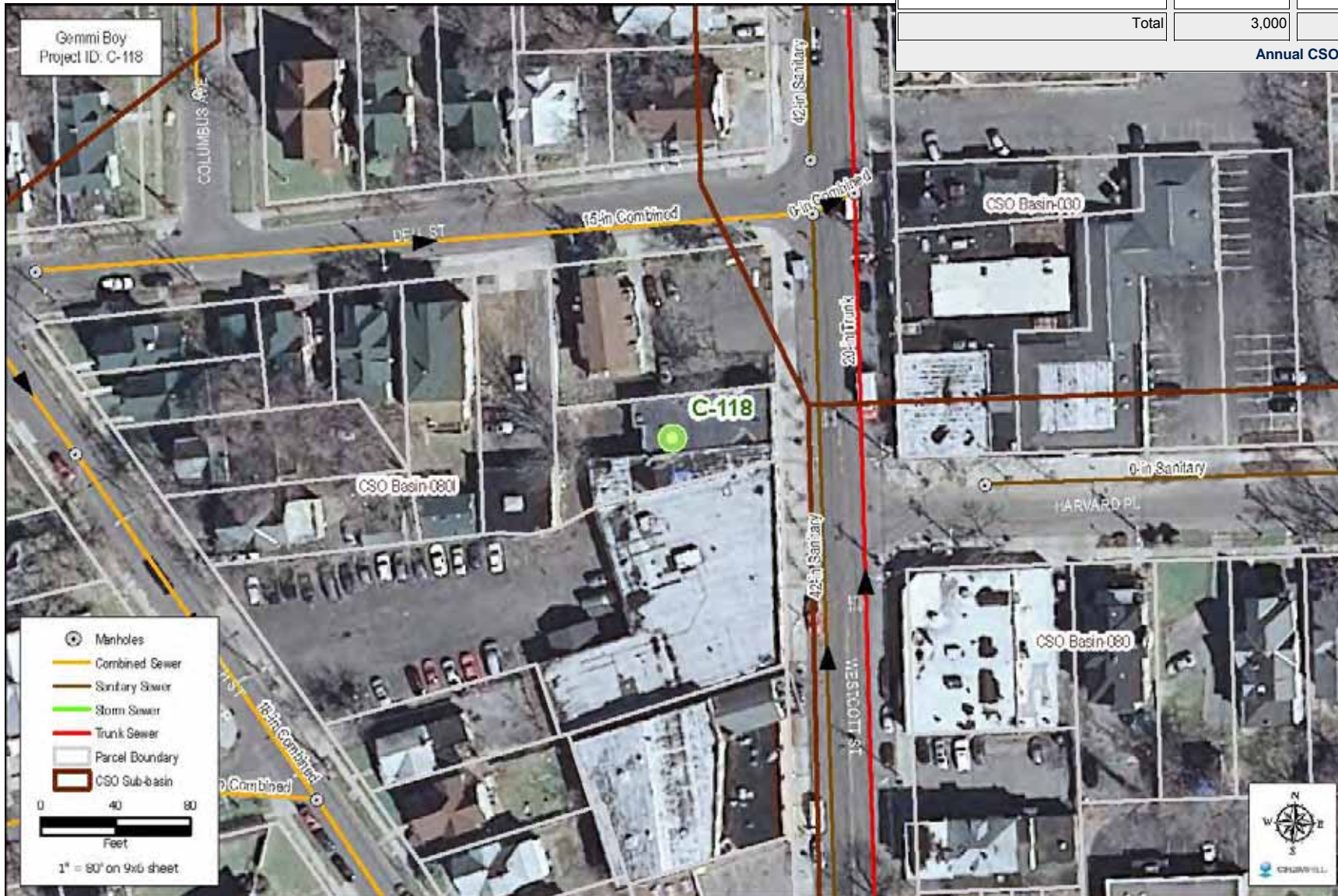


Parcel Owner: Private




 Project ID/Name: C-118 GIF#047 Gemmi Boy
 Proj Address: 508-510 Westcott Street
 Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Cistern/Rain Barrel	1,000	1,000	13,000
Porous Pavement Parking Lot	2,000	2,000	35,000
Total	3,000	3,000	48,000
Annual CSO Reduction (gal)			34,080



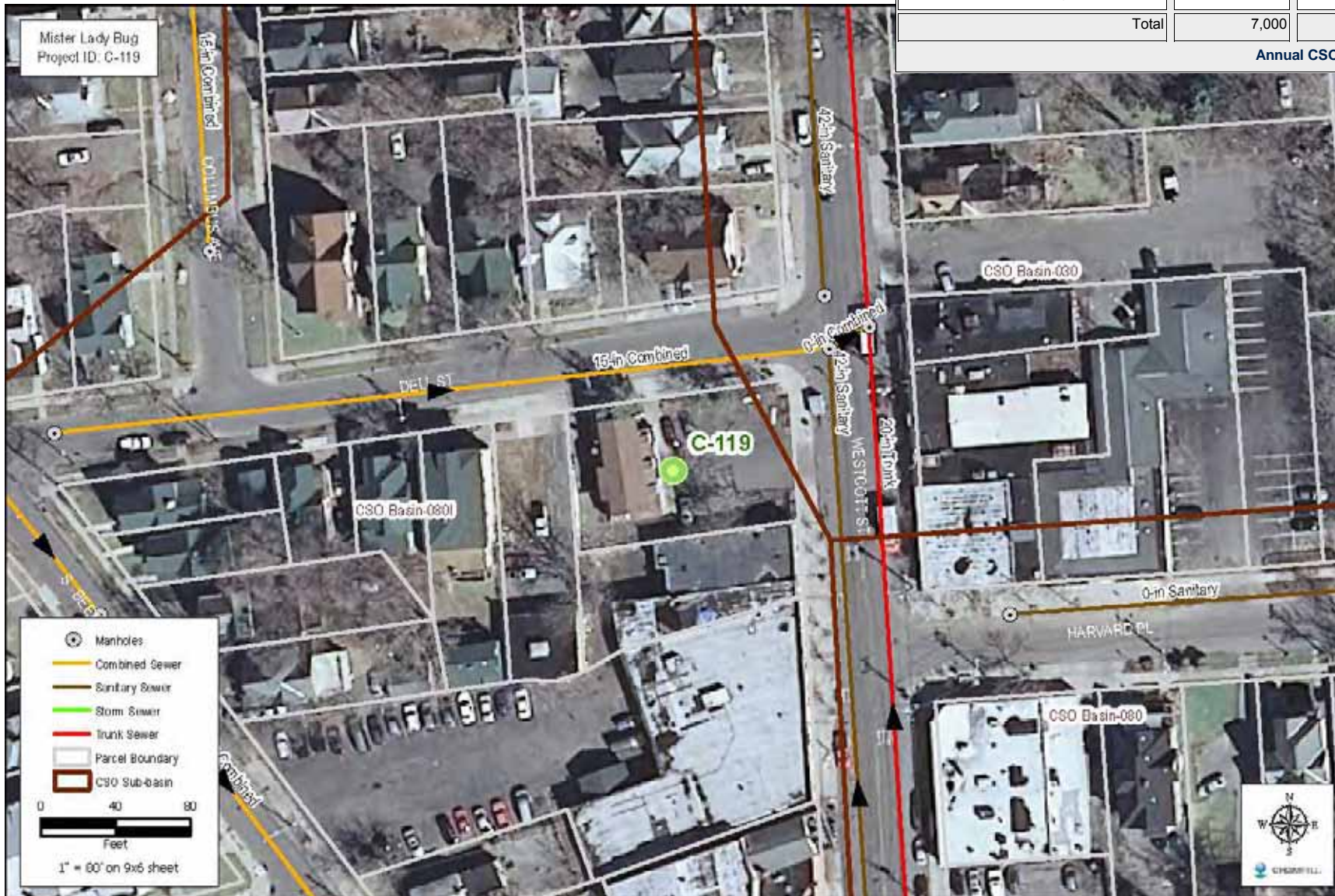


Project ID/Name: C-119 GIF#048 Mister Lady Bug

Proj Address: 500-506 Westcott Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	000	000	3,000
Porous Pavement Parking Lot	7,000	6,000	136,000
Total	7,000	6,000	139,000
Annual CSO Reduction (gal)			98,690

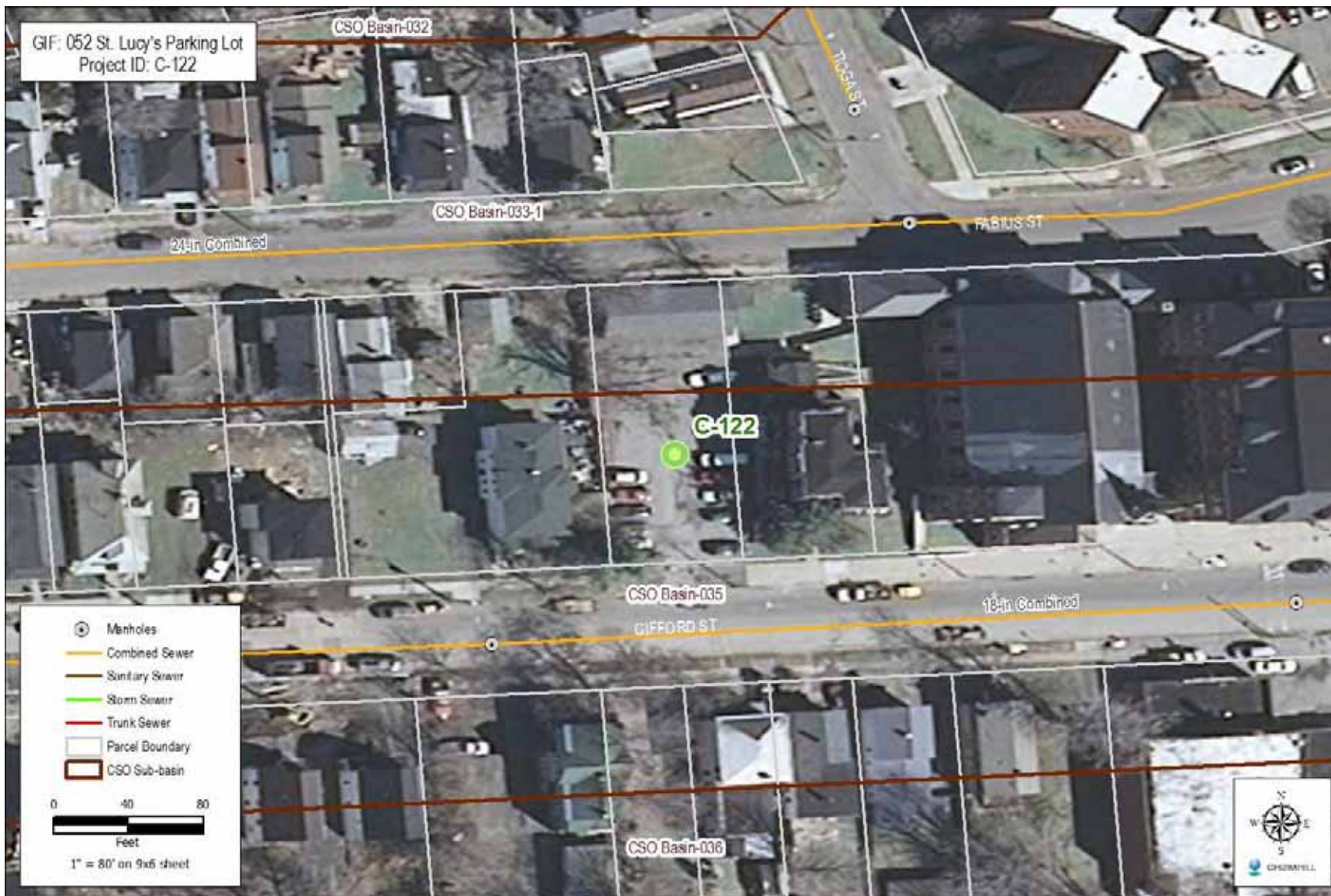




Project ID/Name: C-122 GIF#52 St. Lucy's Parking Lot

Proj Address:

Parcel Owner: Private

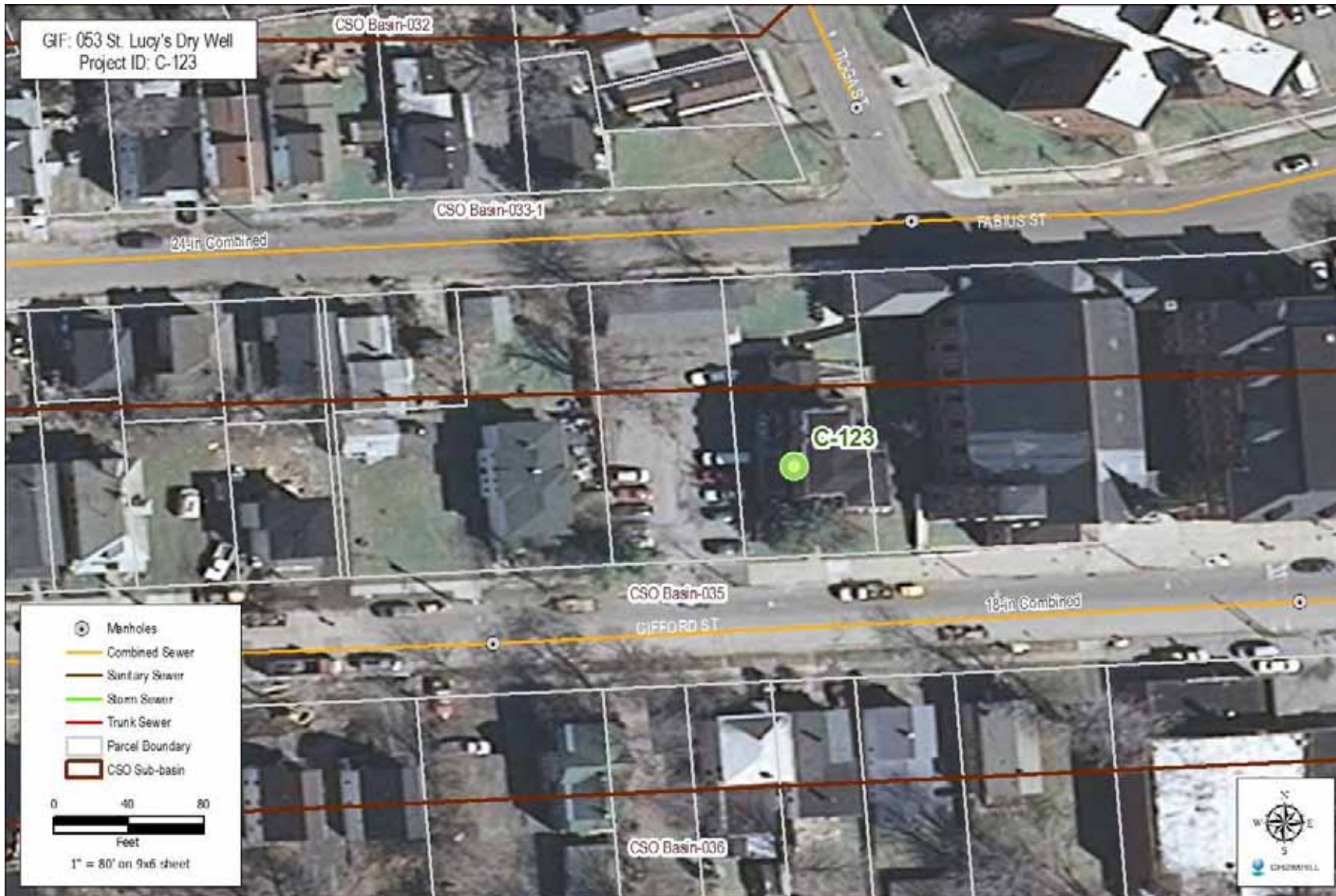




Project ID/Name: C-123 GIF#53 St. Lucy's Dry Well

Proj Address:

Parcel Owner: Private





Project ID/Name: C-124 GIF#54 Syracuse University Waverly Ave. Parking Lot

Proj Address:

Parcel Owner: Private





Project ID/Name: C-125 GIF#55 Bethany Baptist Church

Proj Address:

Parcel Owner: Private



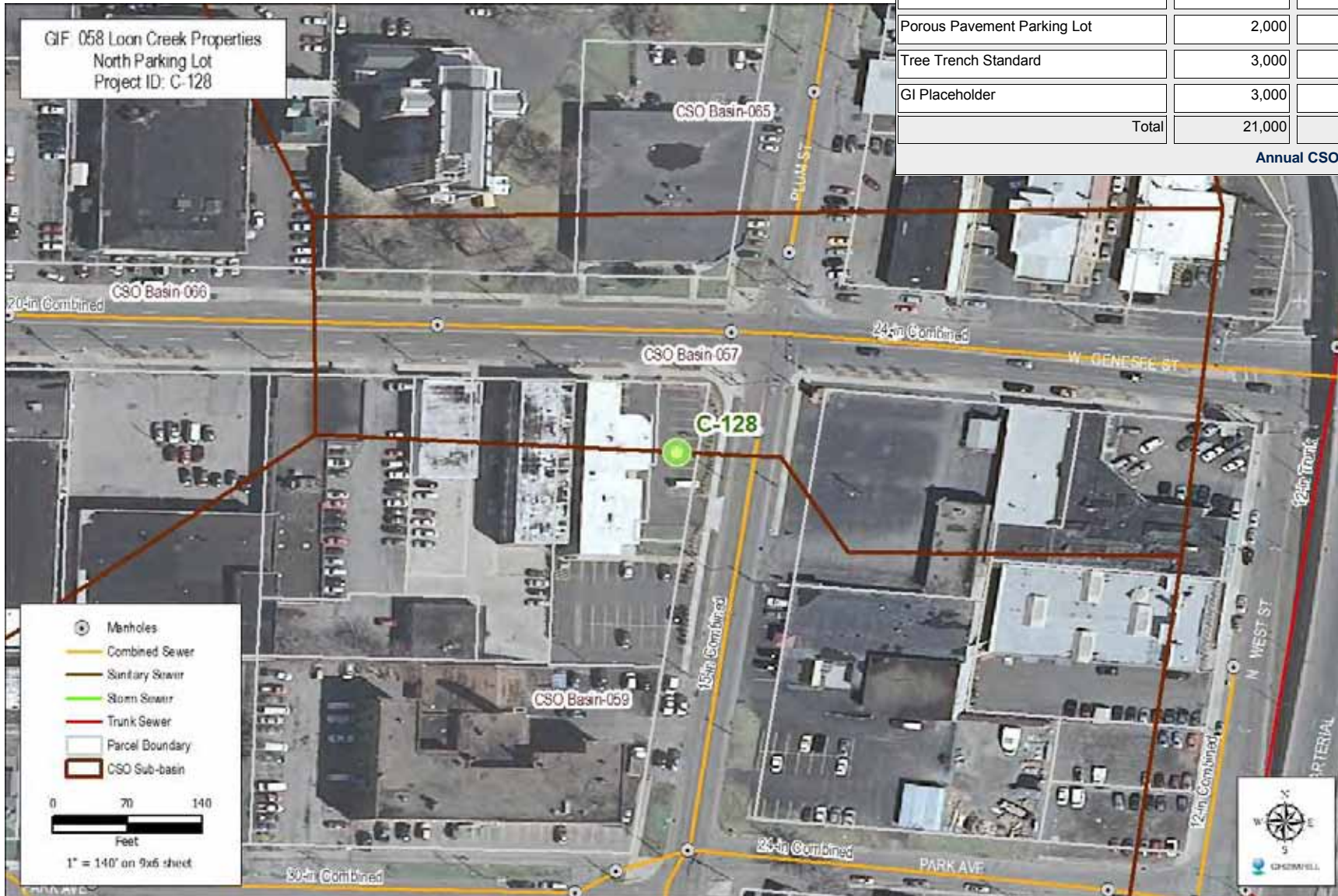


Project ID/Name: C-128 GIF#058 Loon Creek Properties

Proj Address:

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	7,000	2,000	134,000
Porous Pavement Parking Lot	6,000	5,000	111,000
Porous Pavement Parking Lot	2,000	2,000	32,000
Tree Trench Standard	3,000		53,000
GI Placeholder	3,000	000	53,000
Total	21,000	9,000	383,000
Annual CSO Reduction (gal)			271,930



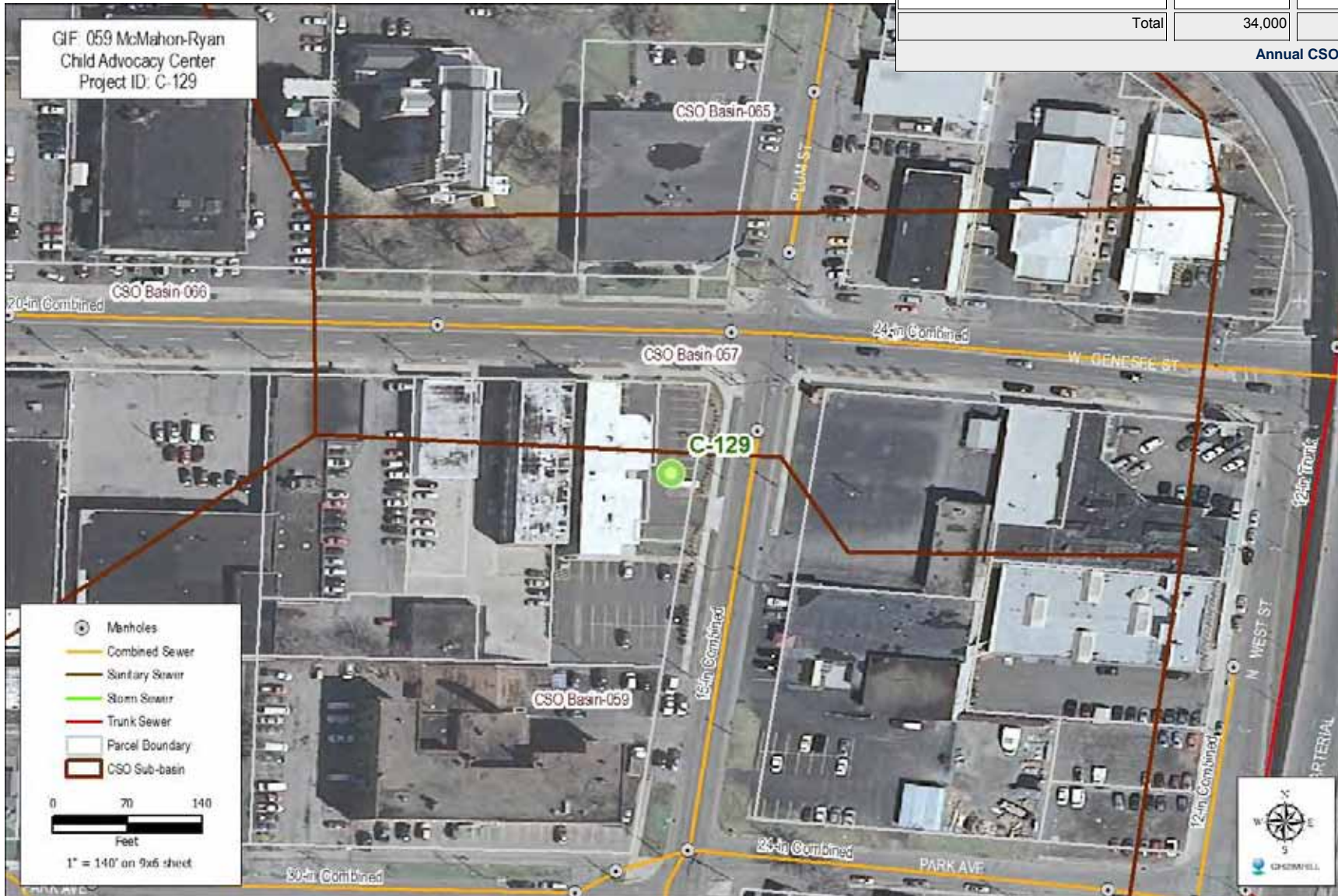


Project ID/Name: C-129 GIF#059 McMahon-Ryan Child Advocacy Center

Proj Address:

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	33,000	13,000	641,000
GI Placeholder	1,000	000	18,000
Total	34,000	13,000	659,000
Annual CSO Reduction (gal)			467,890





Project ID/Name: C-130 State Office Building Parking Lot

Proj Address: 333 E. Washington St.

Parcel Owner: New York State



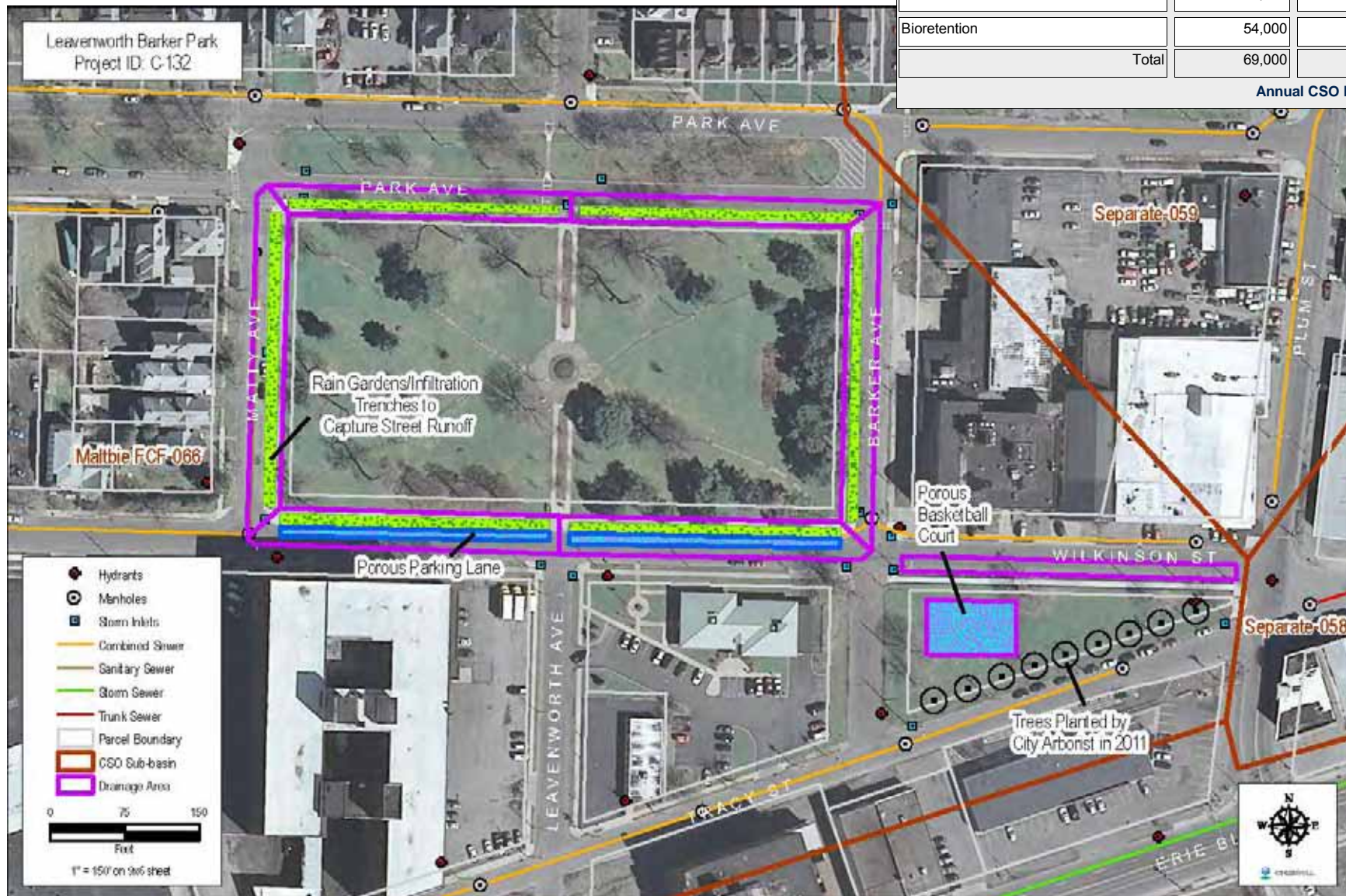


Project ID/Name: C-132 Green Park: Leavenworth/Barker Park

Proj Address: 301 Park Ave and Matty Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Roadway	5,000	5,000	93,000
Porous Pavement Court	10,000	5,000	176,000
Bioretention	54,000	18,000	959,000
Total	69,000	28,000	1,228,000
Annual CSO Reduction (gal)			871,880

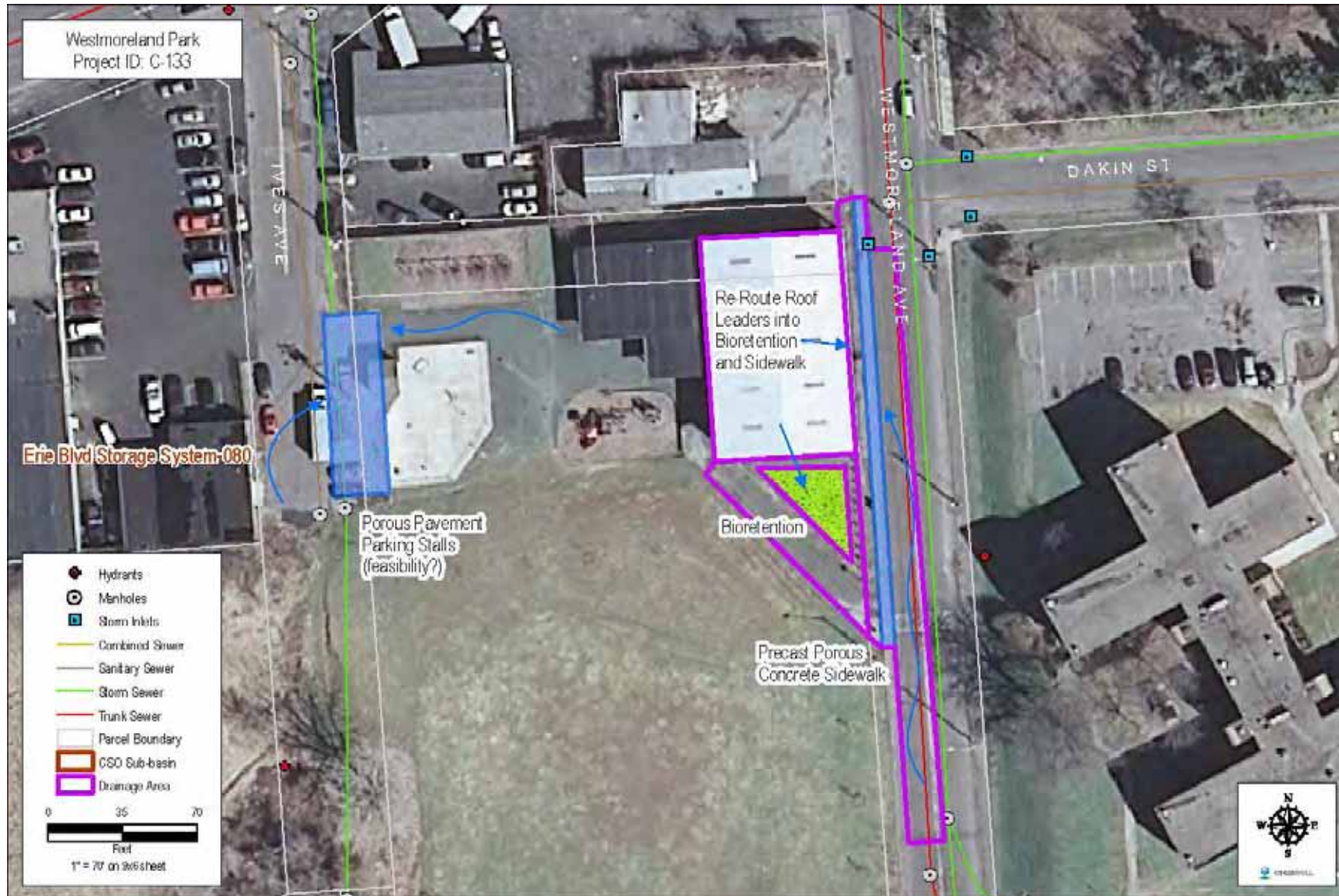




Project ID/Name: C-133 Green Park: Westmoreland Park

Proj Address: 200-252 Westmoreland Ave

Parcel Owner: City of Syracuse Parks Department



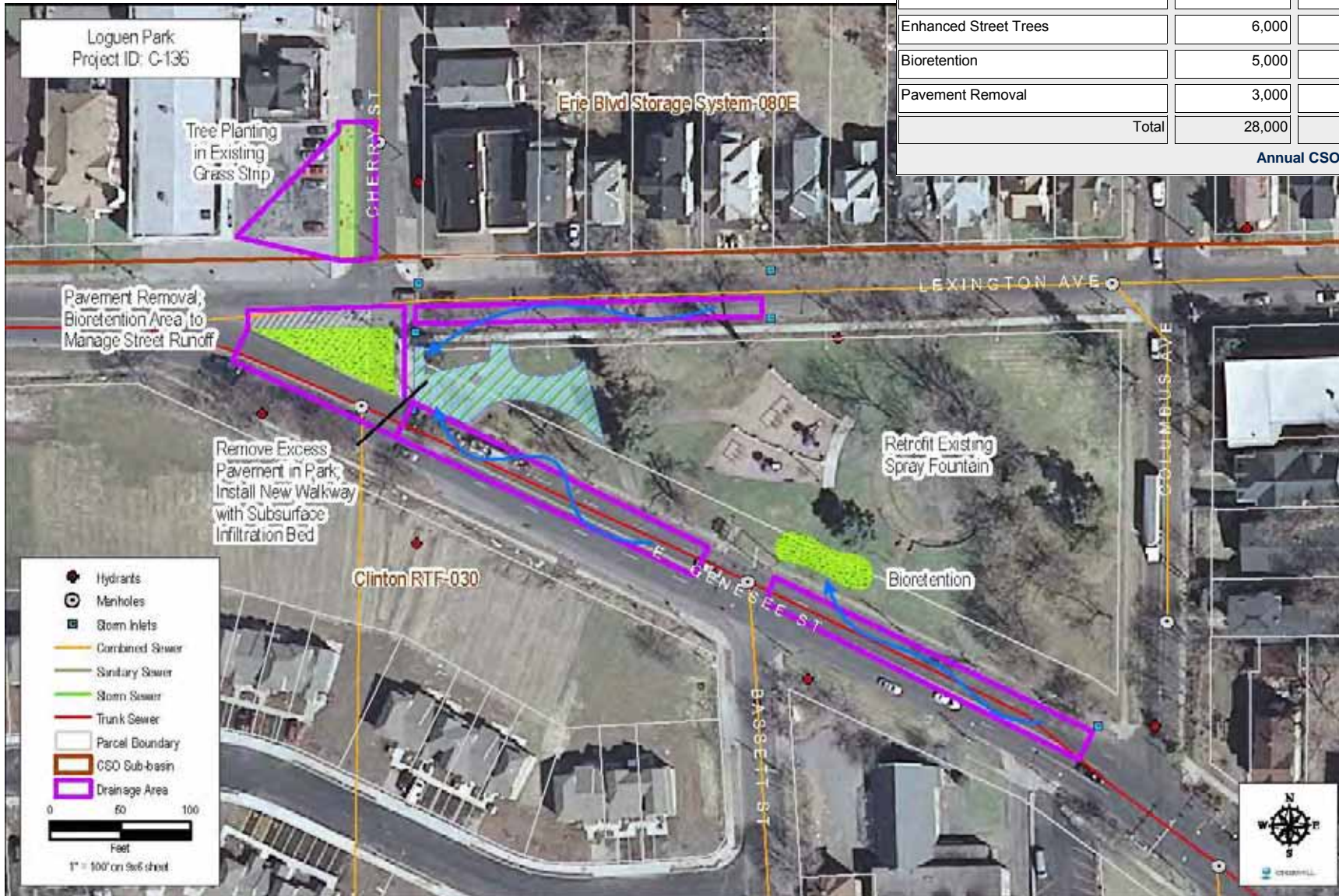


Project ID/Name: C-136 Green Park: Loguen Park

Proj Address: 1801 E Genesee St and Lexington Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	5,000	2,000	92,000
Infiltration Bed	9,000	4,000	161,000
Enhanced Street Trees	6,000	1,000	104,000
Bioretention	5,000	3,000	93,000
Pavement Removal	3,000	3,000	45,000
Total	28,000	13,000	495,000
Annual CSO Reduction (gal)			351,450



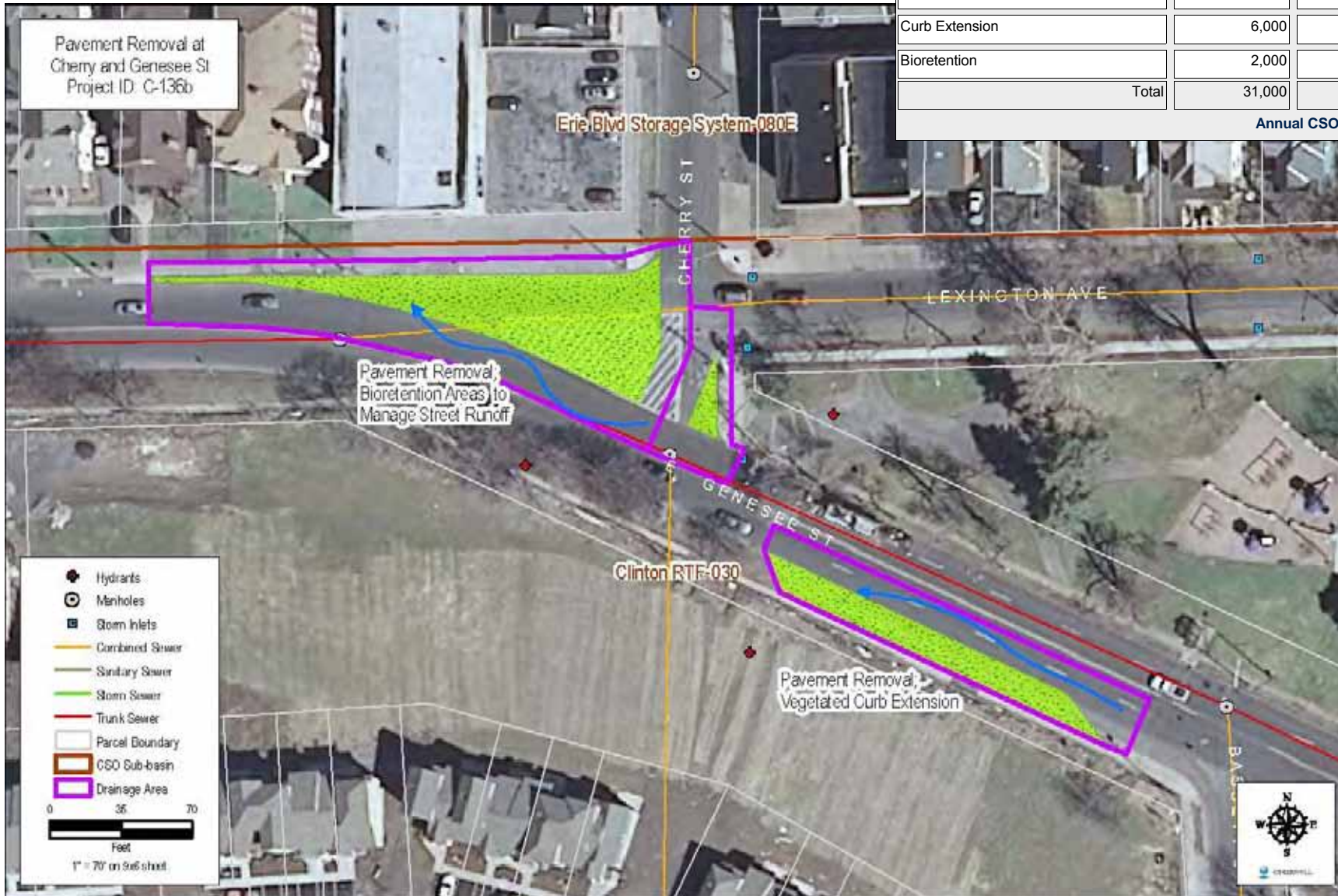


Project ID/Name: C-136b Pavement Removal along Genesee St at Loguen Park

Proj Address: 1801 E Genesee St and Lexington Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Pavement Removal	9,000	9,000	155,000
Bioretention	14,000	6,000	250,000
Curb Extension	6,000	3,000	103,000
Bioretention	2,000	000	41,000
Total	31,000	18,000	549,000
Annual CSO Reduction (gal)			389,790



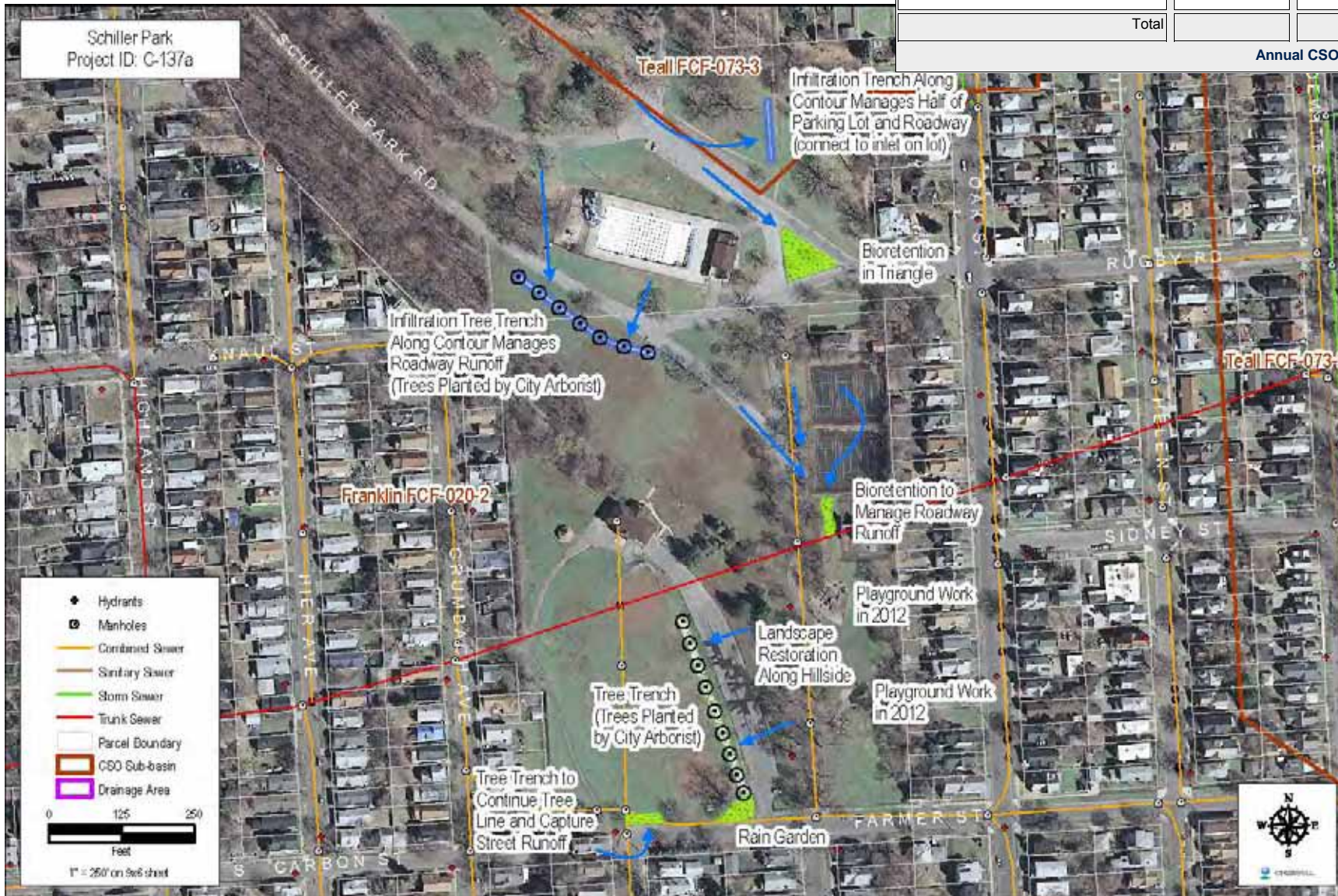


Project ID/Name: C-137 Green Park: Schiller Parl

Proj Address: 112 Whitwell Dr

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Trench			
Bioretention			
Total			
Annual CSO Reduction (gal)			



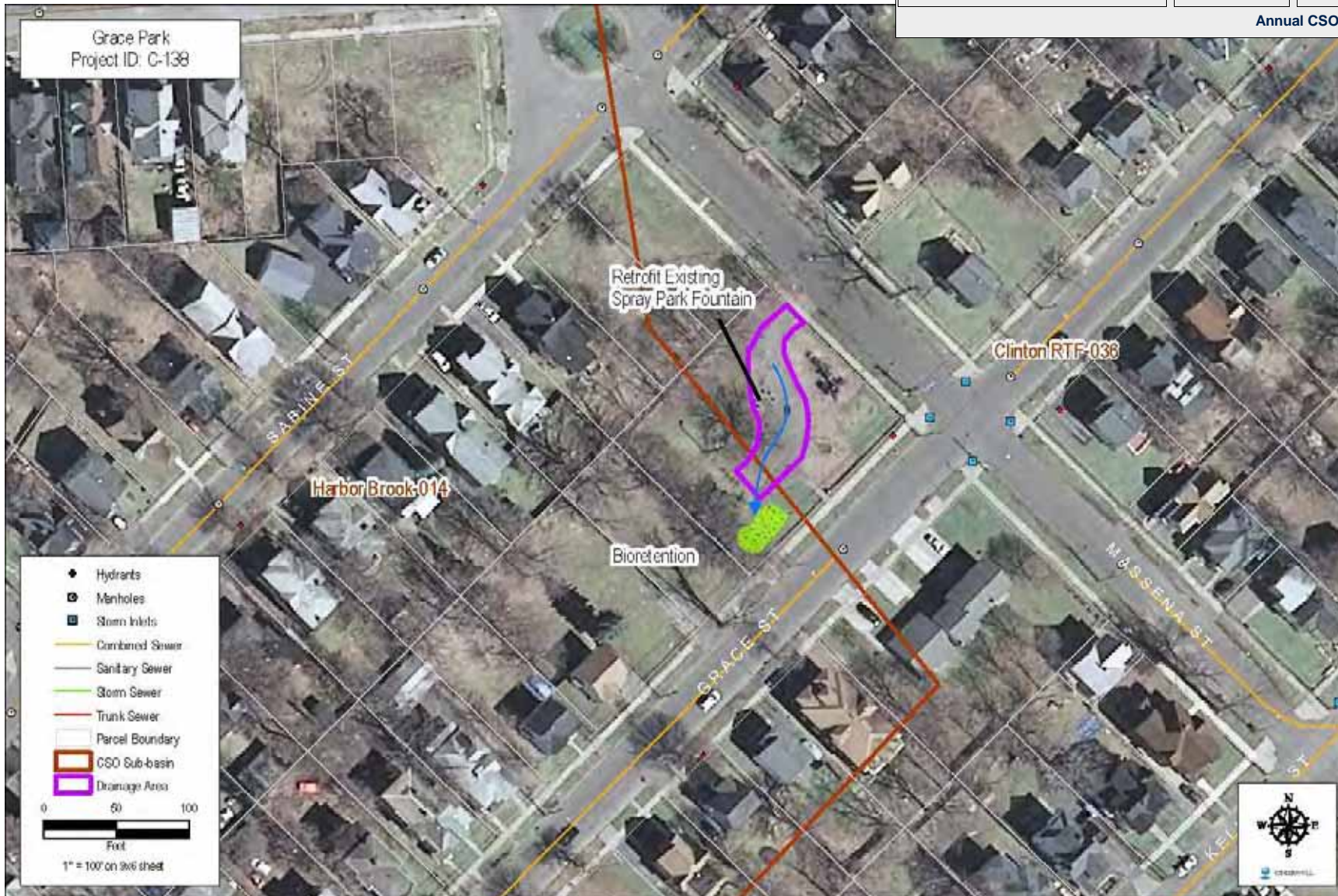


Project ID/Name: C-138 Green Park: Grace Park

Proj Address: 200 Grace St and Massena St

Parcel Owner: City of Syracuse Parks Department

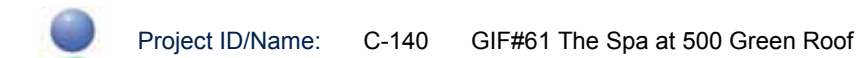
Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	4,000	1,000	63,000
Total	4,000	1,000	63,000
Annual CSO Reduction (gal)			44,730





Parcel Owner: Private





Parcel Owner: Private





Project ID/Name: C-141 GIF#62 Peace Incorporated

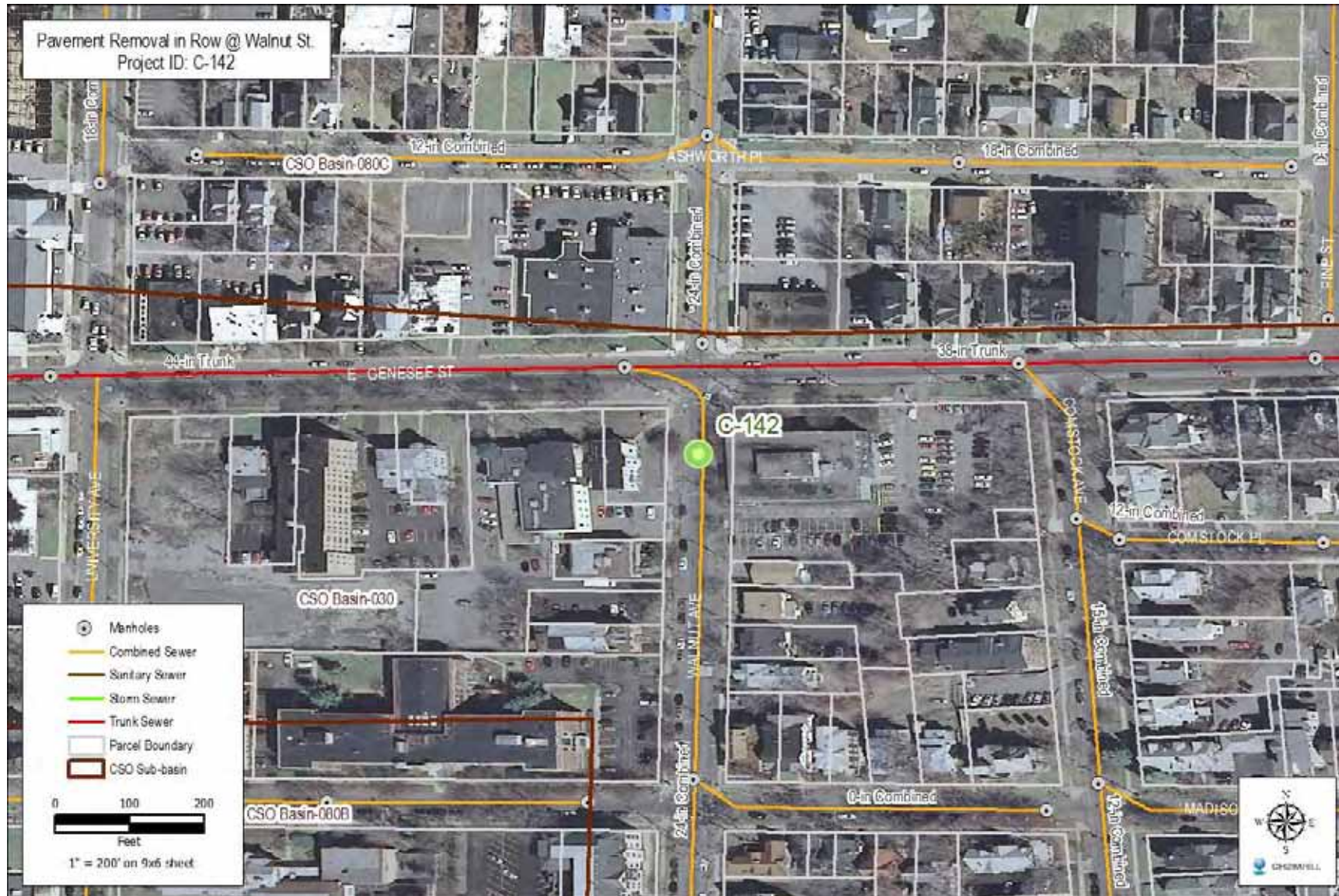
Proj Address:

Parcel Owner: Private





Parcel Owner: City of Syracuse



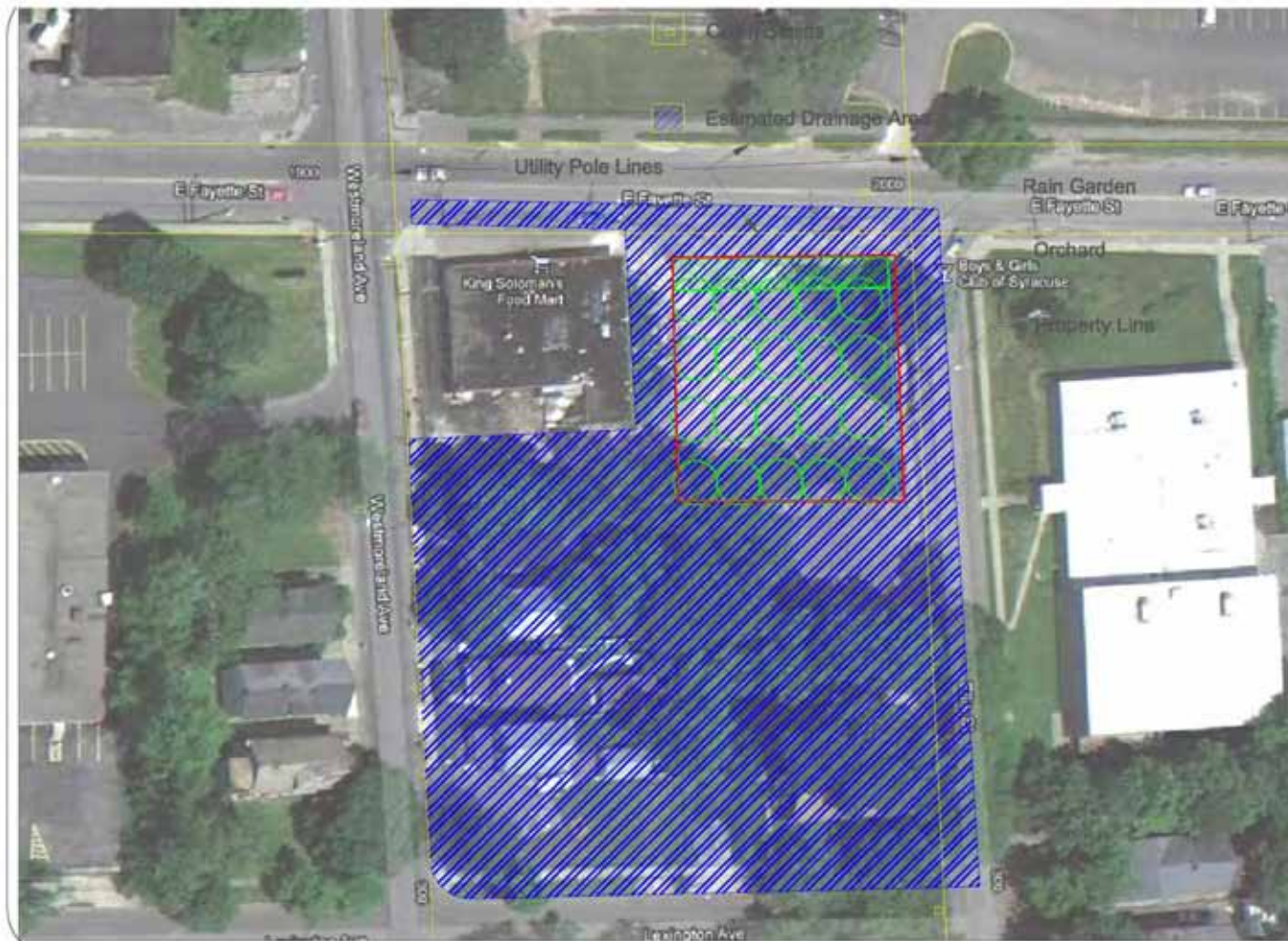


Project ID/Name: C-143 Vacant Lot: Fayette St Orchard

Proj Address: 2016-24 E Fayette St

Parcel Owner: City of Syracuse

2016_E_Fayette_gao.dwg



General Notes		
Concept * Not for Construction		
No.	Description/Notes	Date
Alberto Stele Legal Foundation, Inc. 		
Project Name and Address: VLP #2 2016 E Fayette St, Syracuse New York, 13210		
Client: City of Syracuse	Project: Vacant Lot Program	Page: 1 of 1
Date: 11/21/2011		
Scale: 1" = 50'		

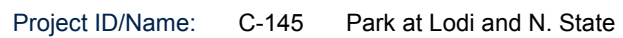


Project ID/Name: C-144 Kennedy Square Redevelopment

Proj Address:

Parcel Owner: Private





Parcel Owner: City of Syracuse Parks Department

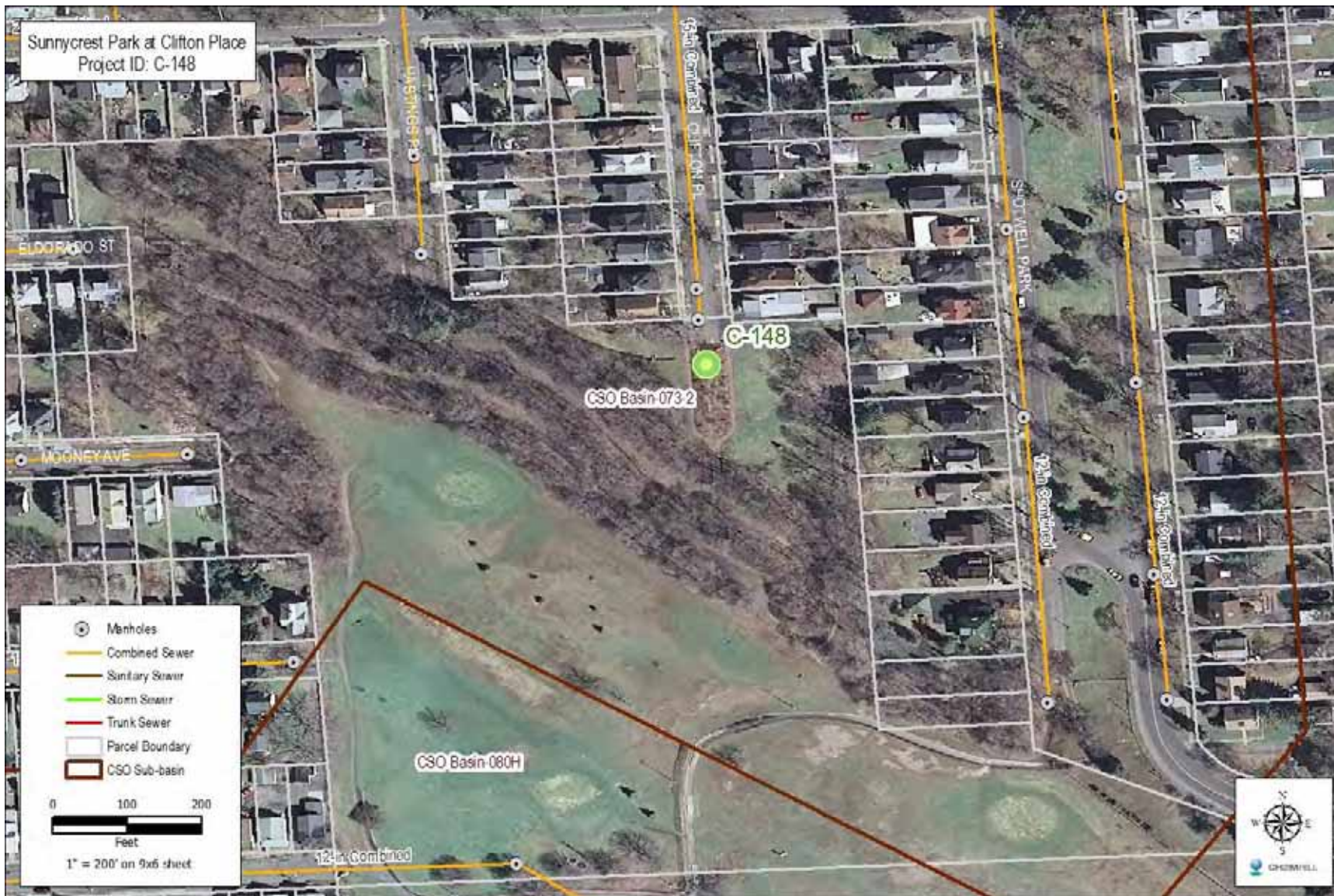




Project ID/Name: C-148 Sunnycrest Park at Clifton Place

Proj Address:

Parcel Owner: City of Syracuse Parks Department





Parcel Owner: City of Syracuse



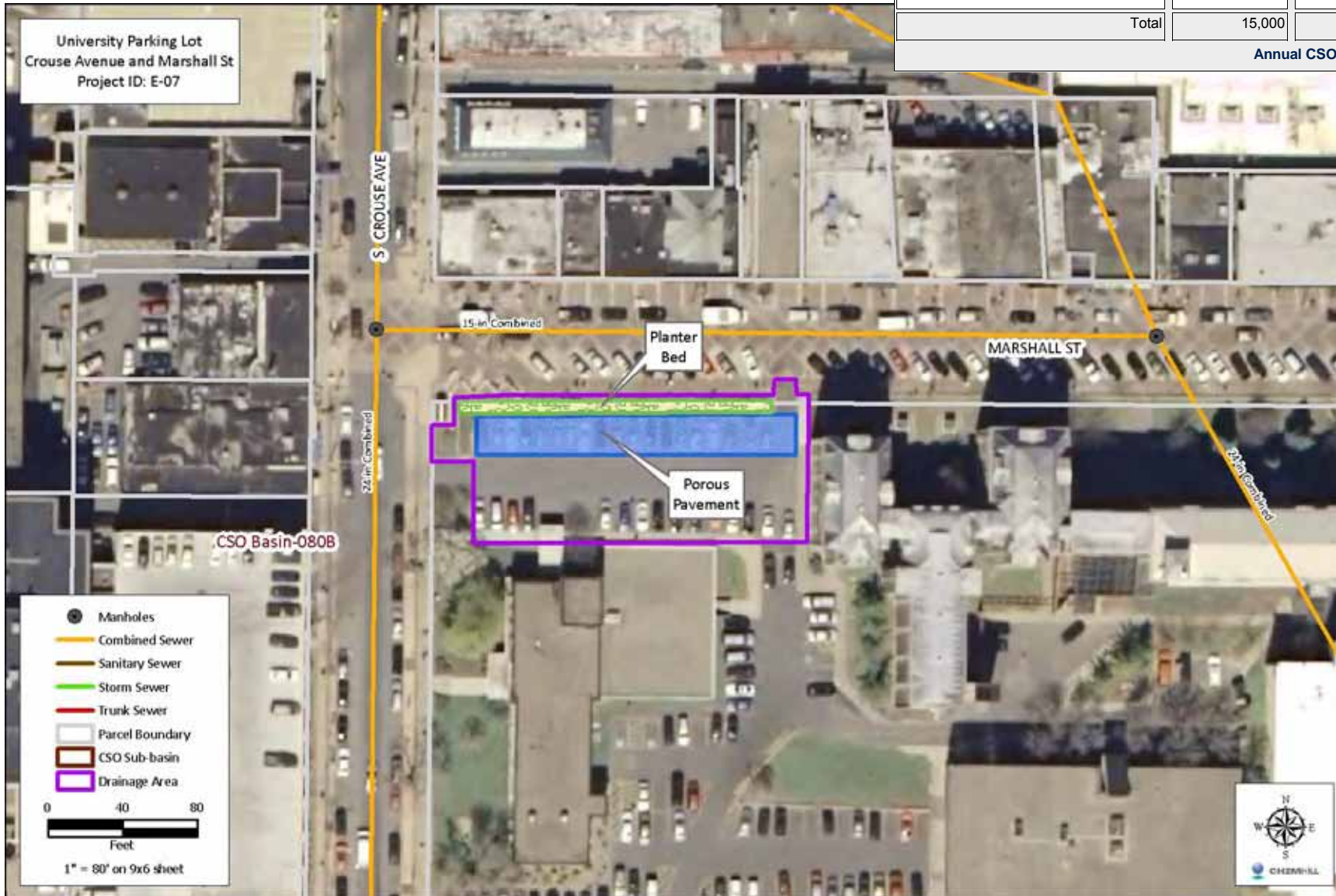


Project ID/Name: E-07 Private Parking Lot-Marshall St and Crouse Ave

Proj Address: 801 - 841 Crouse Ave. & Marshall St

Parcel Owner: Syracuse University

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	3,000	1,000	53,000
Porous Pavement Parking Lot	12,000	4,000	211,000
Total	15,000	5,000	264,000
Annual CSO Reduction (gal)			187,440



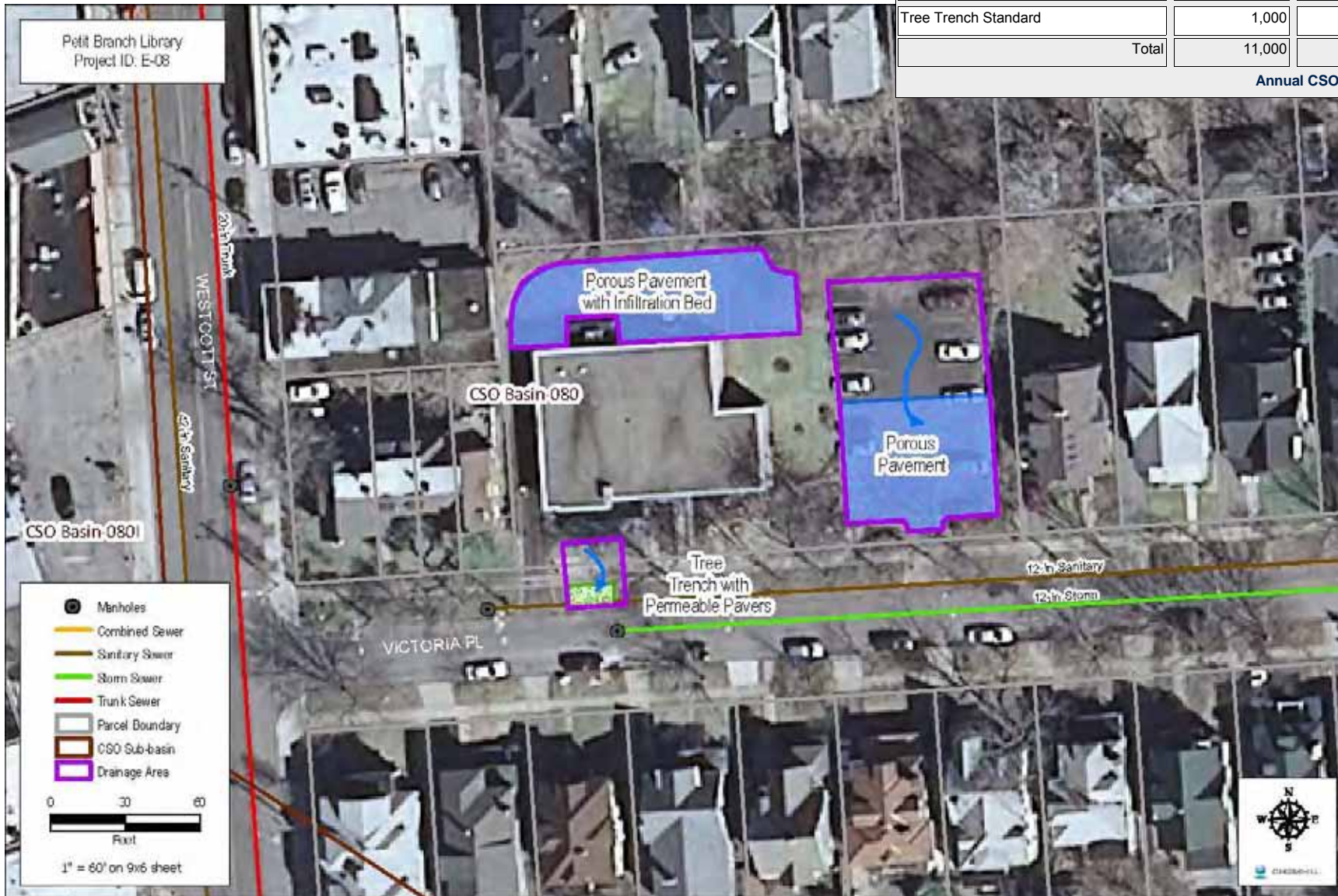


Project ID/Name: E-08 Petit Branch Library

Proj Address: 105 Victoria Place

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	4,000	4,000	64,000
Porous Pavement Parking Lot	6,000	3,000	109,000
Tree Trench Standard	1,000	000	16,000
Total	11,000	7,000	189,000
Annual CSO Reduction (gal)			134,190

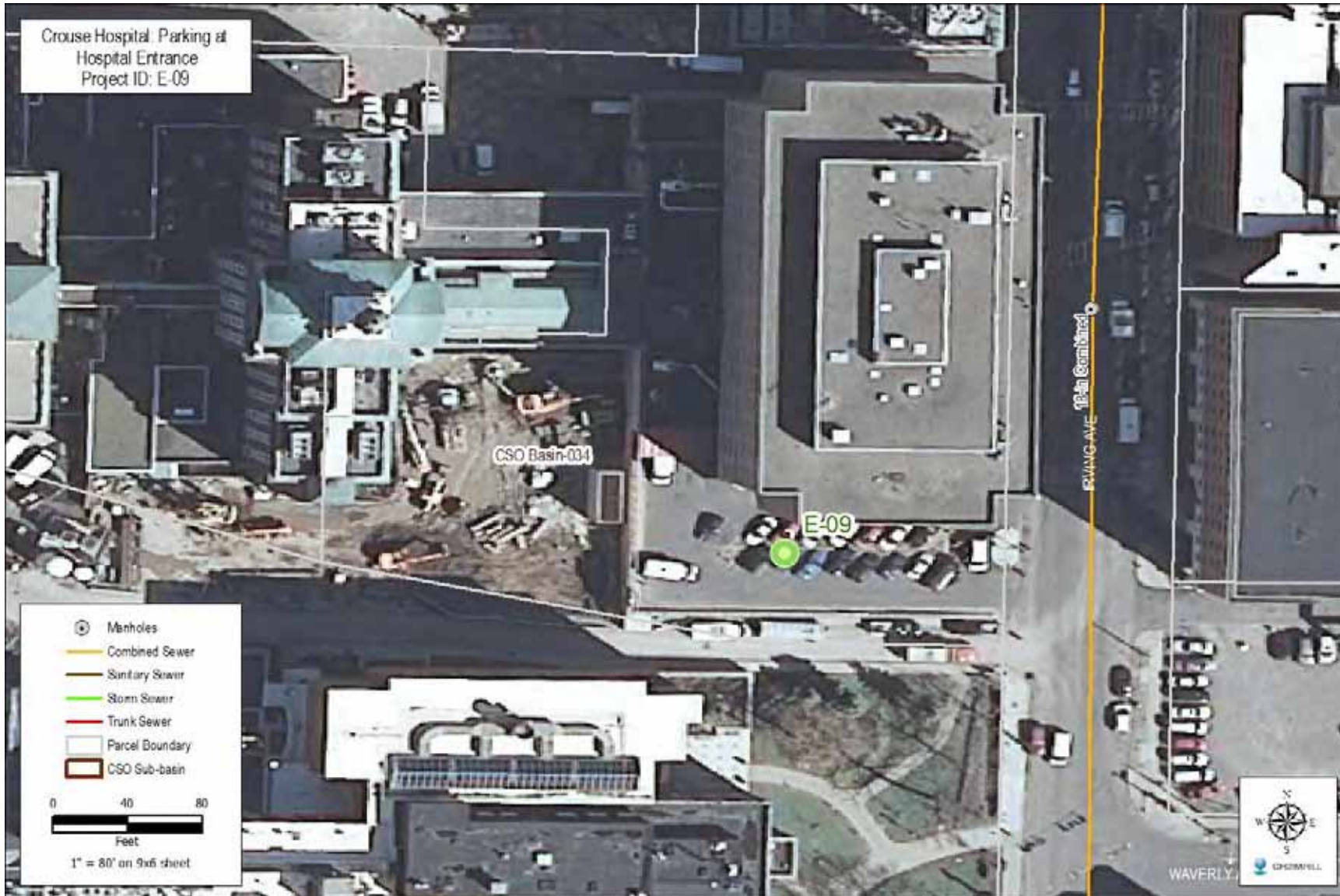





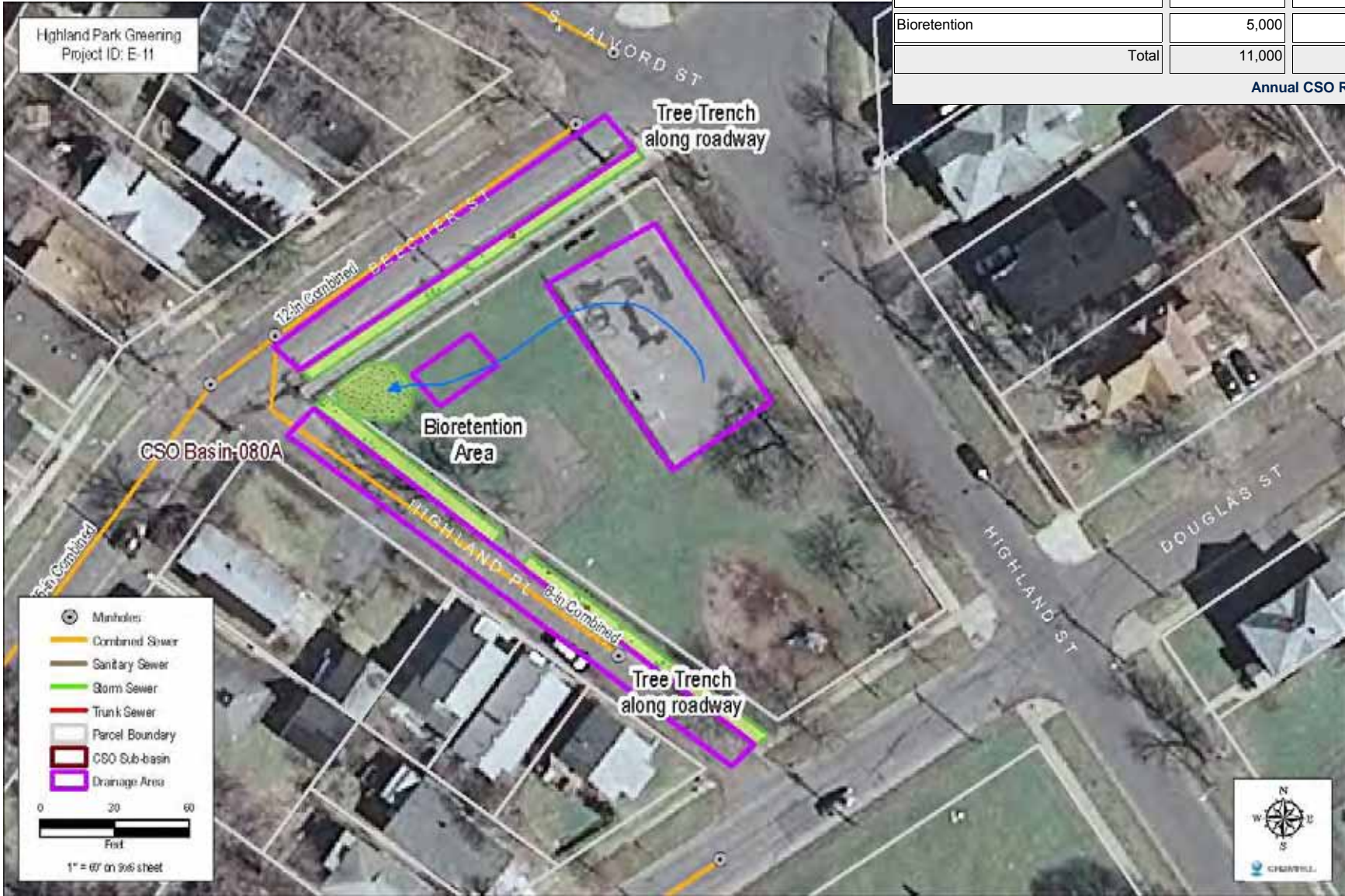
Project ID/Name: E-09 Crouse Hospital: Parking at Hospital Entrance

Proj Address: E. Adams St & S Crouse Ave.

Parcel Owner: Crouse Health Hospital




Project ID/Name: E-11 **Green Park: Highland Park Greening**
Proj Address: 421 Highland
Parcel Owner: City of Syracuse Parks Department



Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	3,000	1,000	54,000
Tree Trench Standard	3,000	1,000	47,000
Bioretention	5,000	1,000	85,000
Total	11,000	3,000	186,000
Annual CSO Reduction (gal)			132,060

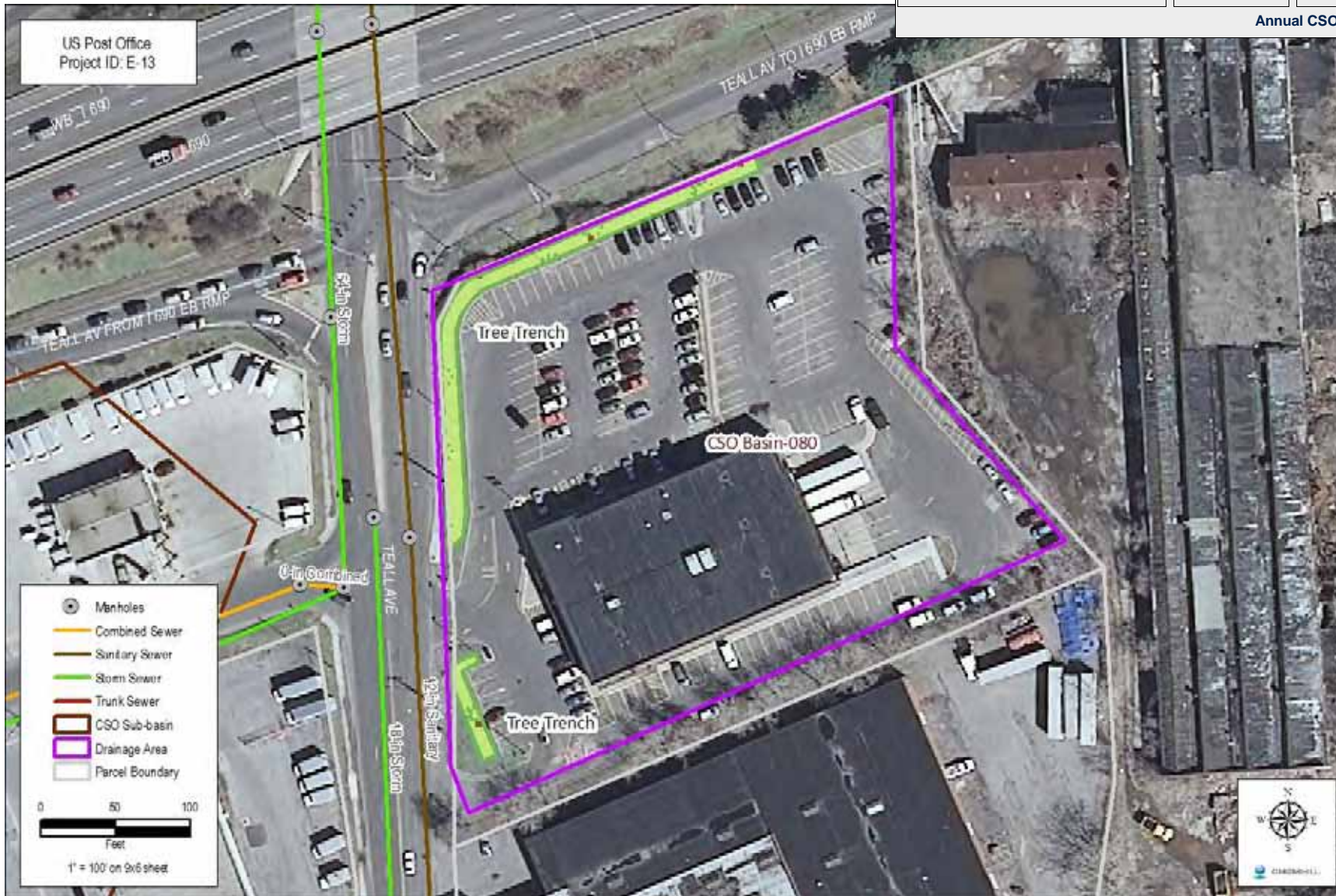


Project ID/Name: E-13b US Post Office on Teall Ave: Site Improvements

Proj Address: 226 Teall Avenue

Parcel Owner: United States Postal Service

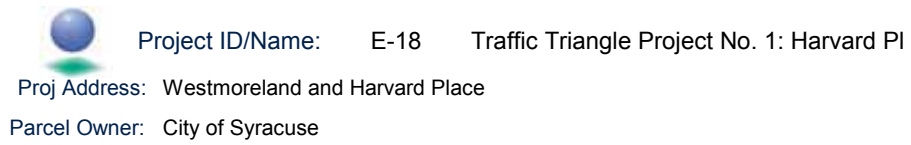
Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard			
Total			
Annual CSO Reduction (gal)			



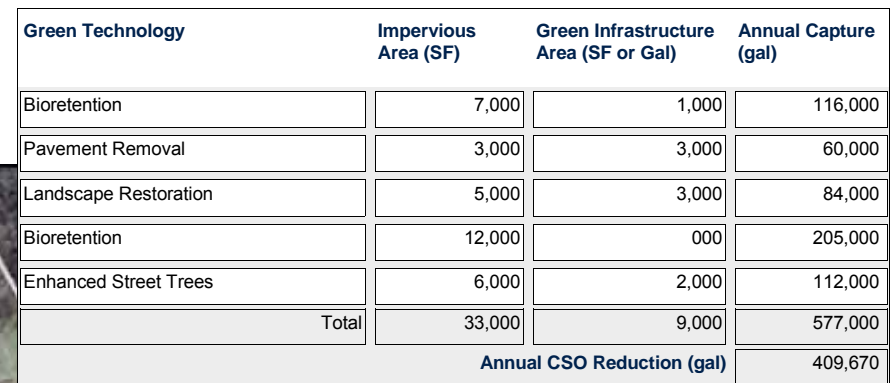


Parcel Owner: Syracuse City School District





Parcel Owner: City of Syracuse

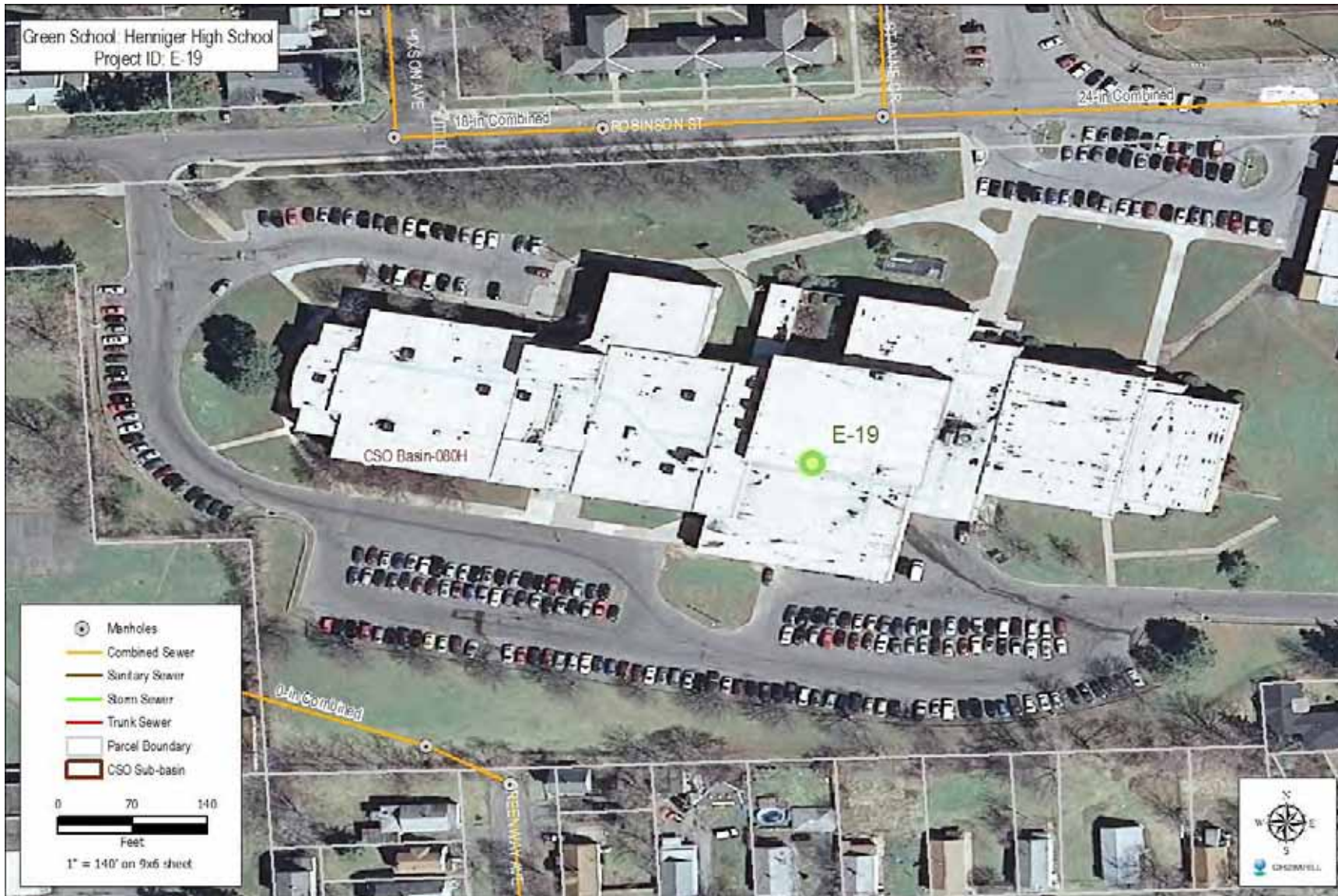




Project ID/Name: E-19 Green School: Henniger High School

Proj Address: 600 Robinson Street

Parcel Owner: Syracuse City School District



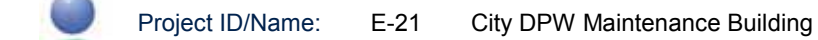


Project ID/Name: E-20 Green School: Huntington School

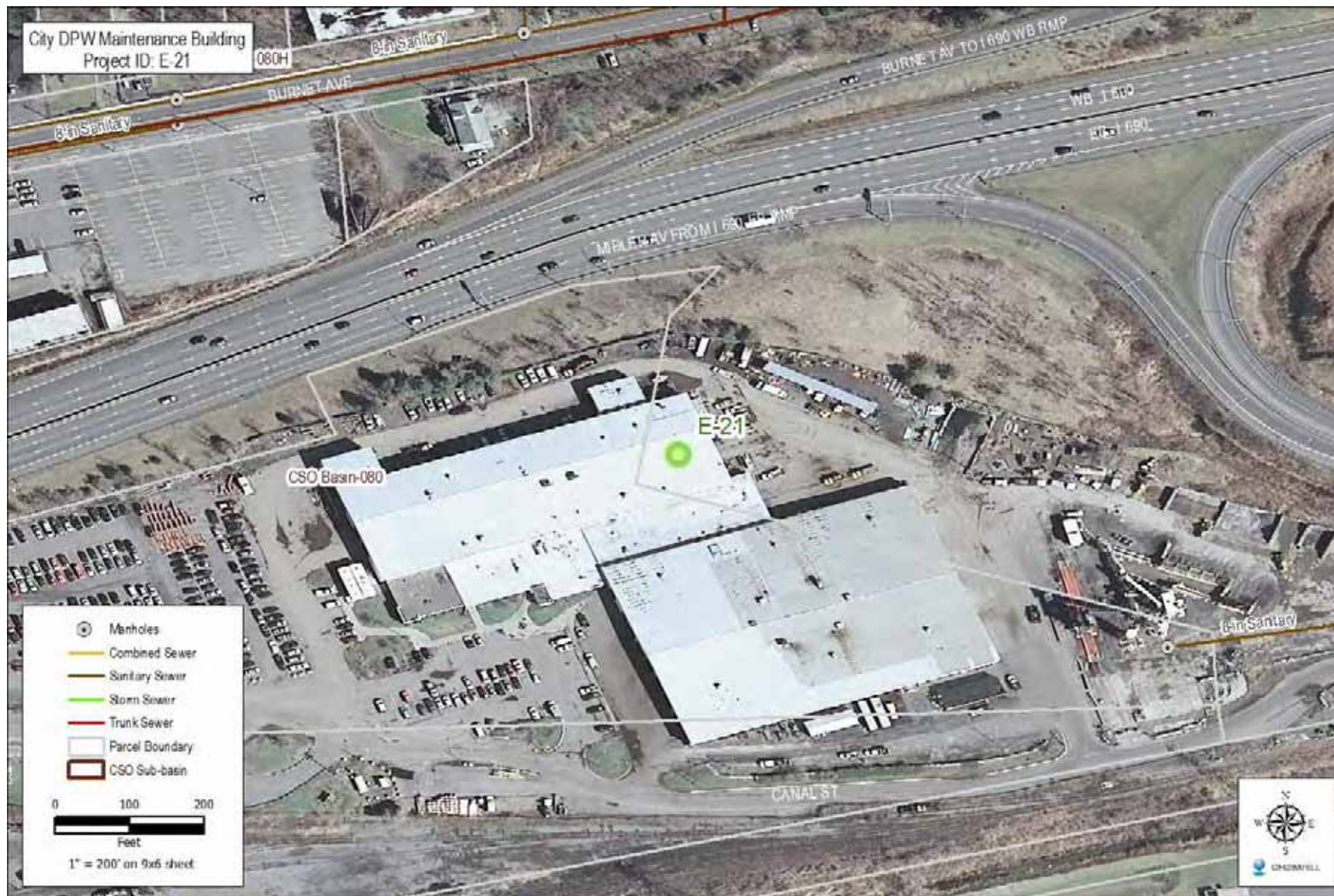
Proj Address: Sunnycrest Rd and Stanford


Parcel Owner: Syracuse City School District





Parcel Owner: City of Syracuse




 Project ID/Name: E-22 Green Park: Lincoln Park
 Proj Address: Intersection of Robinson and Sherwood Ave
 Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	4,000	000	69,000
Bioretention	5,000	000	86,000
Landscape Restoration	9,000	9,000	167,000
Green Roof	3,000	3,000	50,000
Total	21,000	12,000	372,000
Annual CSO Reduction (gal)			264,120





Project ID/Name: E-20 Green School: Huntington School

Proj Address: Sunnycrest Rd and Stanford

Parcel Owner: Syracuse City School District





Project ID/Name: E-32 Parking Lot at 1101 Erie Blvd. East

Proj Address: 1101 Erie Blvd. East

Parcel Owner: 1101 Investors LLC





Project ID/Name: E-33 I-690 Disconnection

Proj Address: Leavenworth Ave beneath I-690 Bridge

Parcel Owner: New York State DOT

Elevated Highway Downspout Disconnection Program Project Opportunity Boundary: I-690 Corridor



Save the Rain



Project ID/Name: E-38 Sims Matchplate Site

Proj Address: 2176 Erie Blvd E & Beattie St

Parcel Owner: City of Syracuse



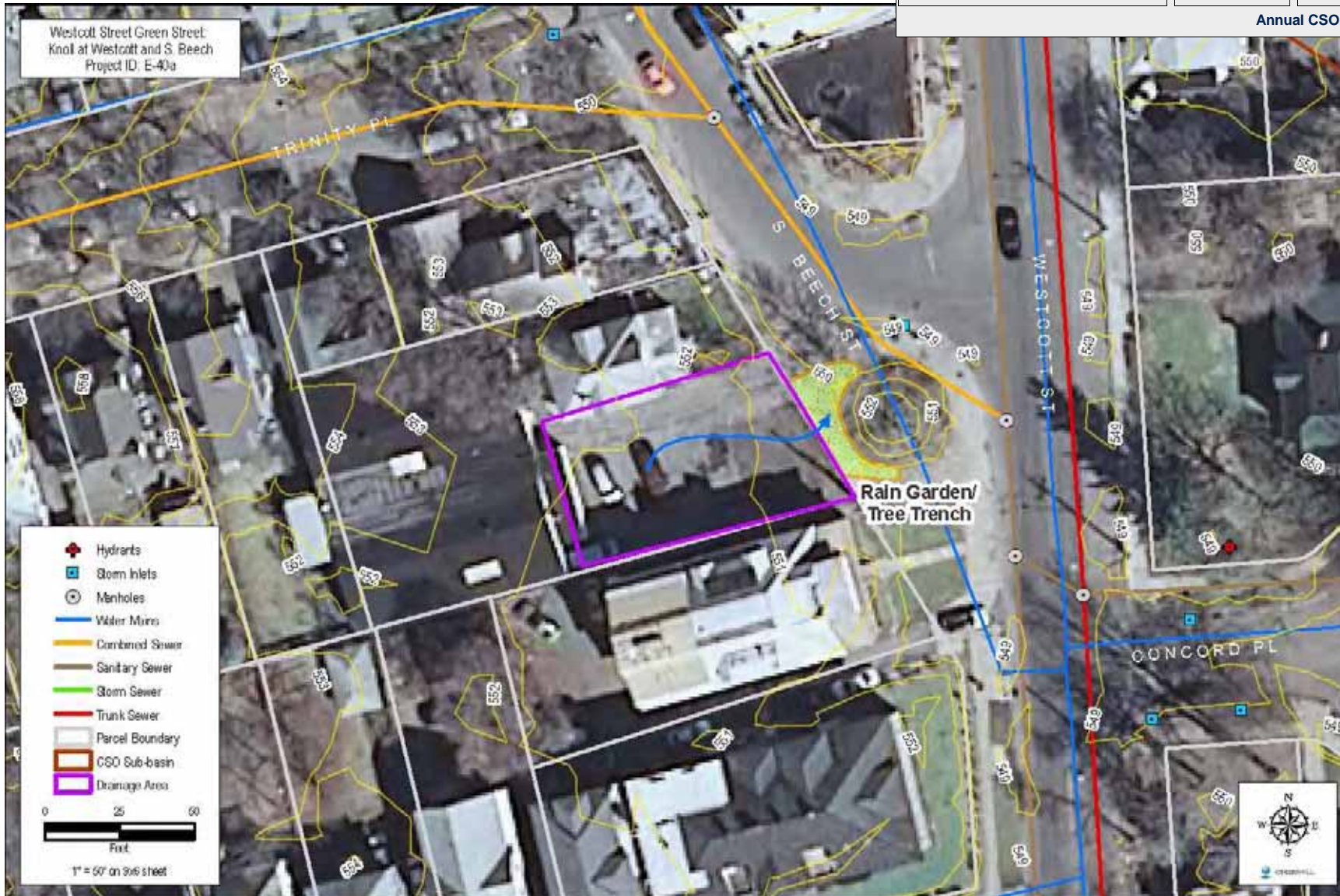


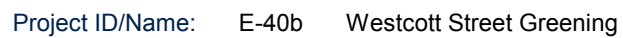
Project ID/Name: E-40a Westcott Street Green Street: Knoll at S. Beech

Proj Address: Westcott St at S Beech St

Parcel Owner: City of Syracuse

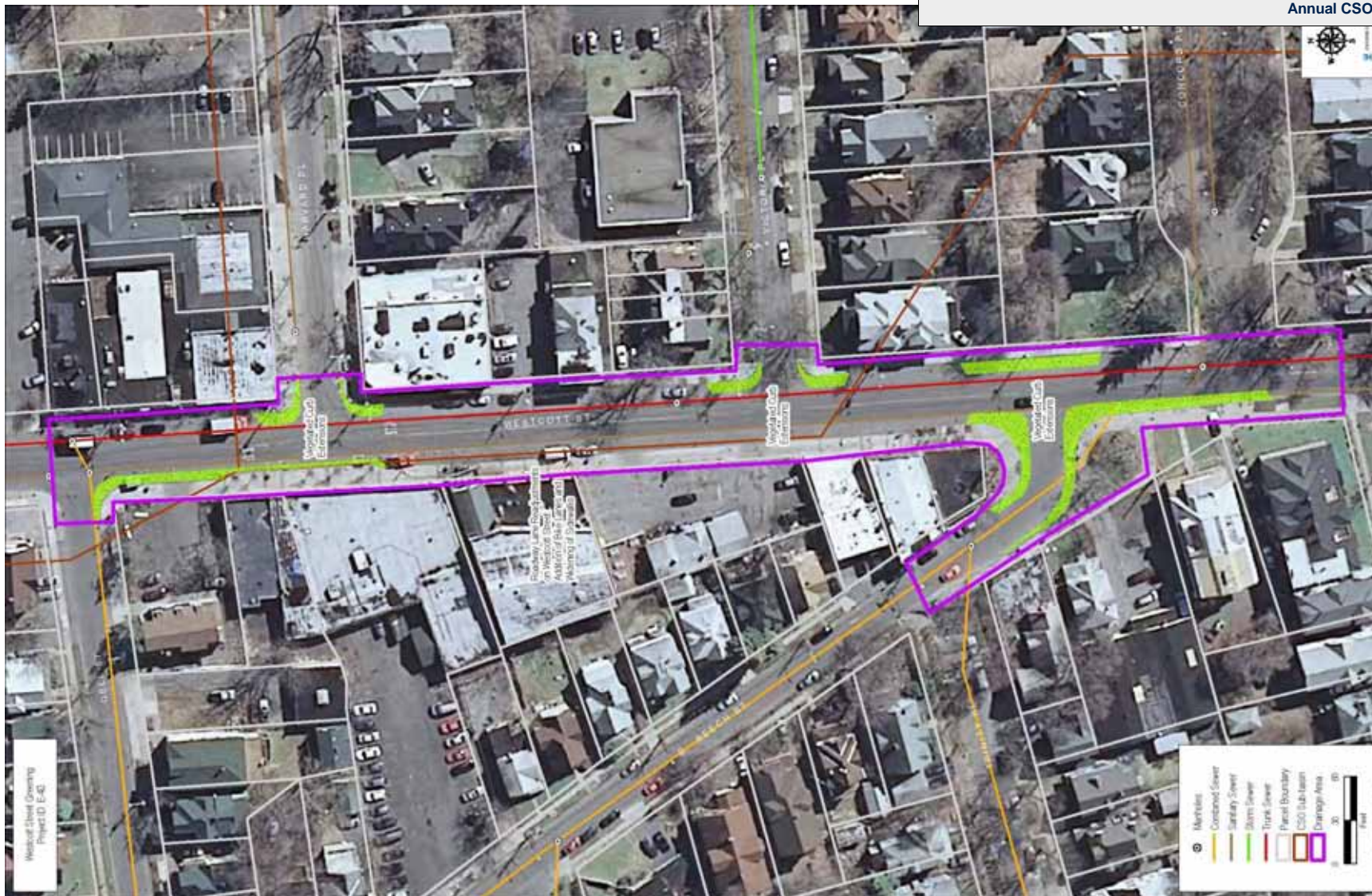
Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	4,000	1,000	79,000
Total	4,000	1,000	79,000
Annual CSO Reduction (gal)			56,090

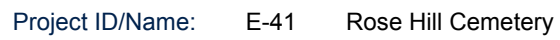




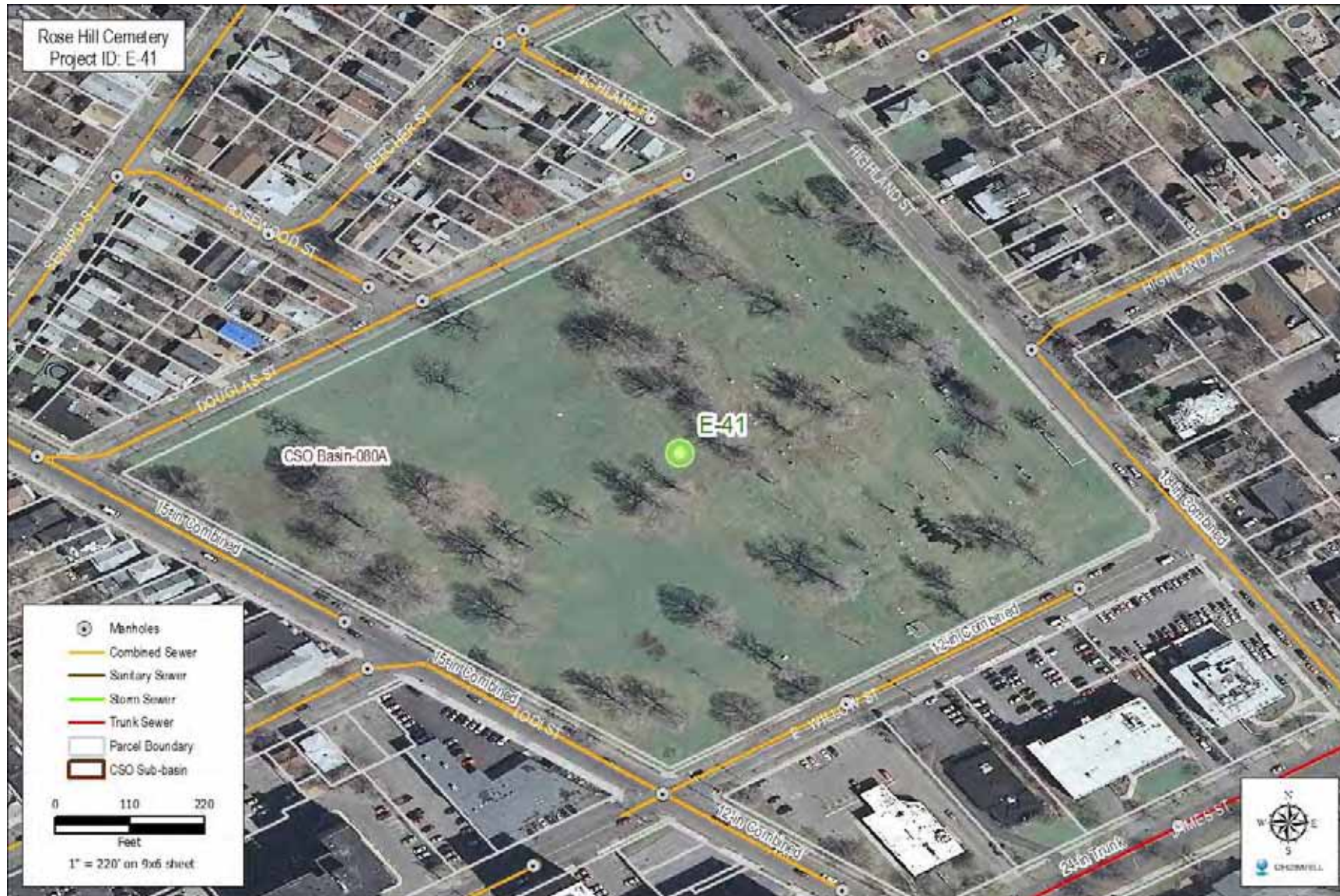
Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Curb Extension	50,000	6,000	881,000
Total	50,000	6,000	881,000
Annual CSO Reduction (gal)			625,510





Parcel Owner: City of Syracuse



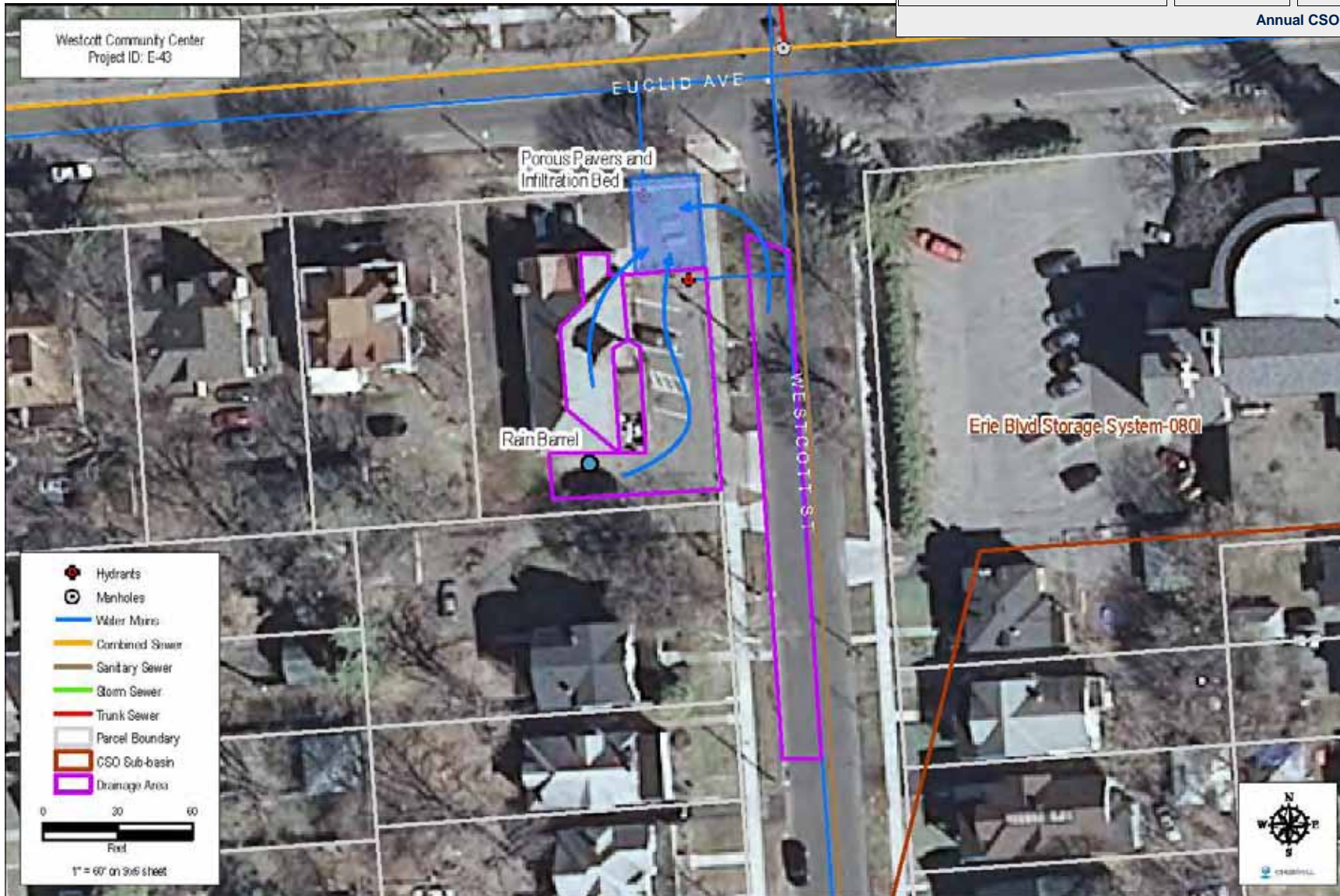


Project ID/Name: E-43 Westcott Community Center

Proj Address: 822-26 Euclid Ave and Westcott St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	9,000	1,000	153,000
Total	9,000	1,000	153,000
Annual CSO Reduction (gal)			108,630



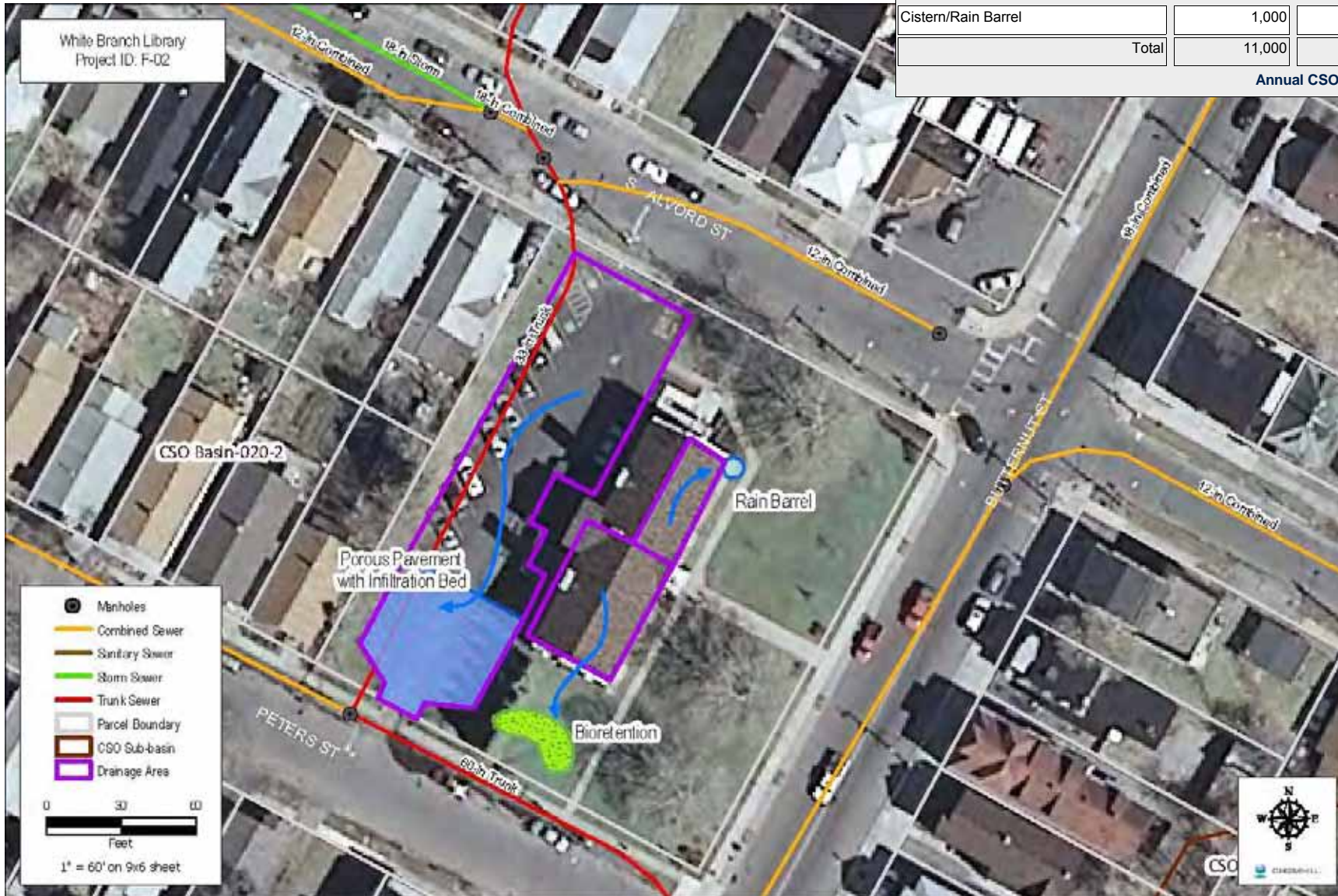


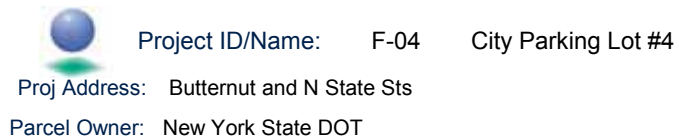
Project ID/Name: F-02 White Branch Library

Proj Address: 763 Butternut St

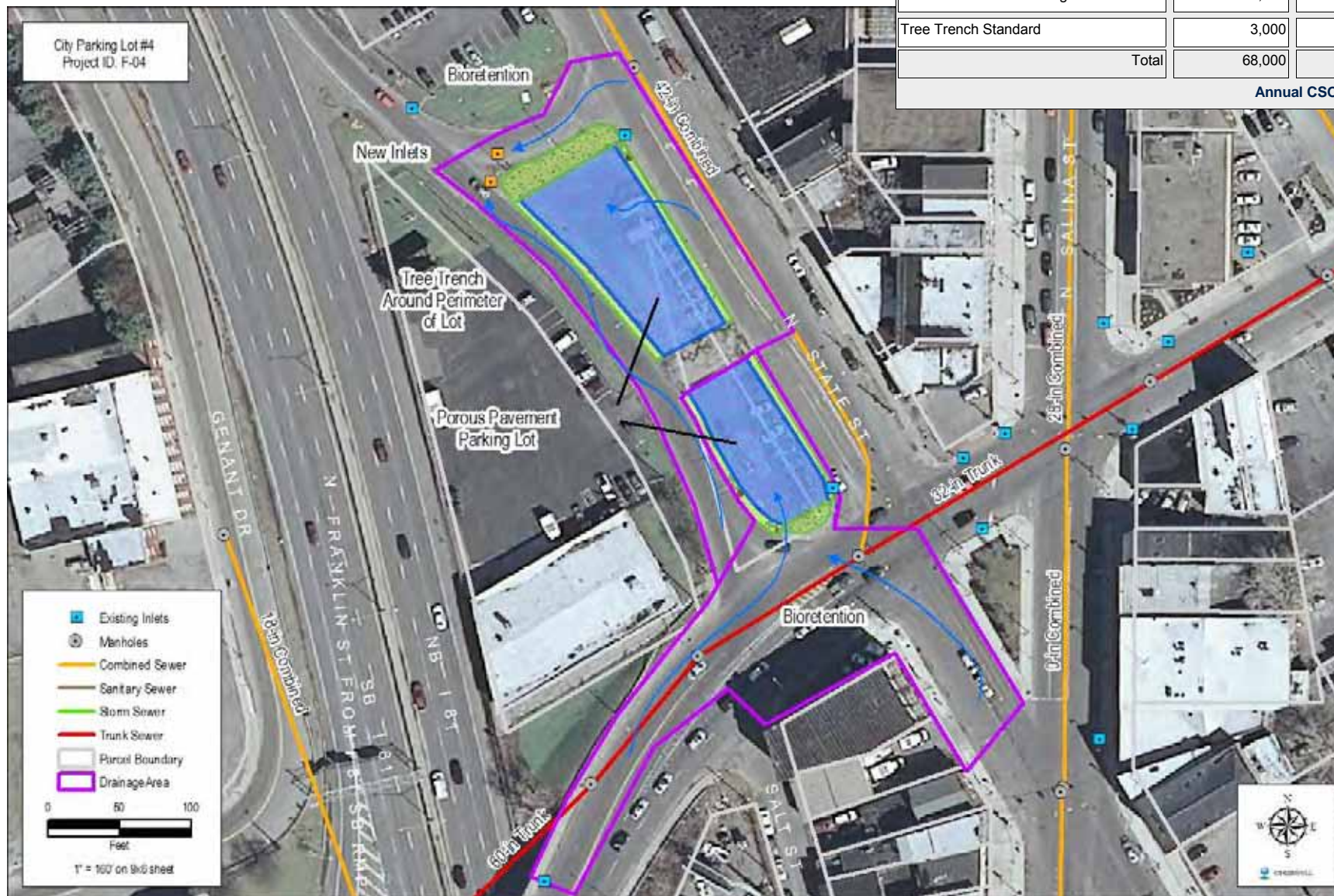
Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	1,000	000	25,000
Porous Pavement Parking Lot	9,000	2,000	159,000
Cistern/Rain Barrel	1,000		15,000
Total	11,000	2,000	199,000
Annual CSO Reduction (gal)			141,290





Parcel Owner: New York State DOT



Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	2,000	2,000	34,000
Porous Pavement Parking Lot	63,000	15,000	1,113,000
Tree Trench Standard	3,000	3,000	56,000
Total	68,000	20,000	1,203,000
Annual CSO Reduction (gal)			854,130

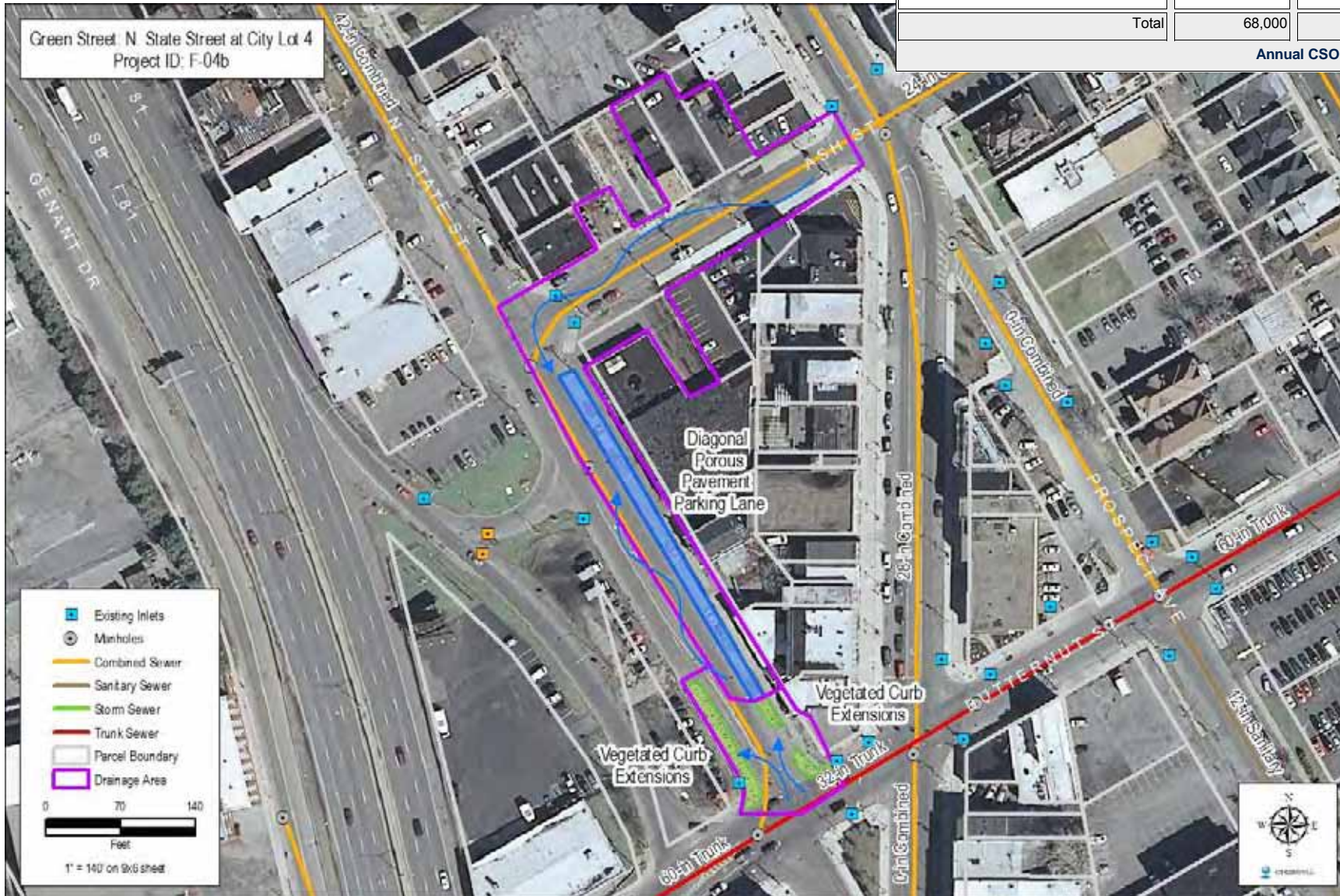


Project ID/Name: F-04b Green Street: N State St at City Lot 4

Proj Address: N State St bw Butternut and Ash

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	57,000	5,000	1,008,000
Curb Extension	11,000	3,000	188,000
Total	68,000	8,000	1,196,000
Annual CSO Reduction (gal)			849,160





Project ID/Name: F-05a Prospect Park Green Gateway - Phase 1

Proj Address: Prospect Park, E Laurel St to N Salina St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Street	108,000		1,907,000
Total	108,000		1,907,000
Annual CSO Reduction (gal)			1,353,970





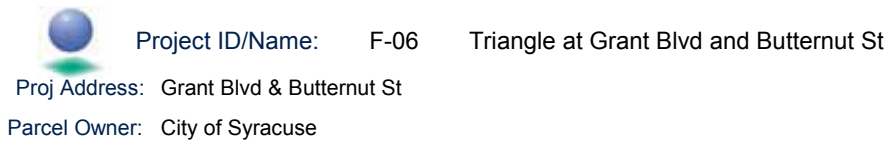
Project ID/Name: F-05b Prospect Park Green Gateway - Phase 2

Proj Address: N Salina and 200 Block Butternut St

Parcel Owner: City of Syracuse

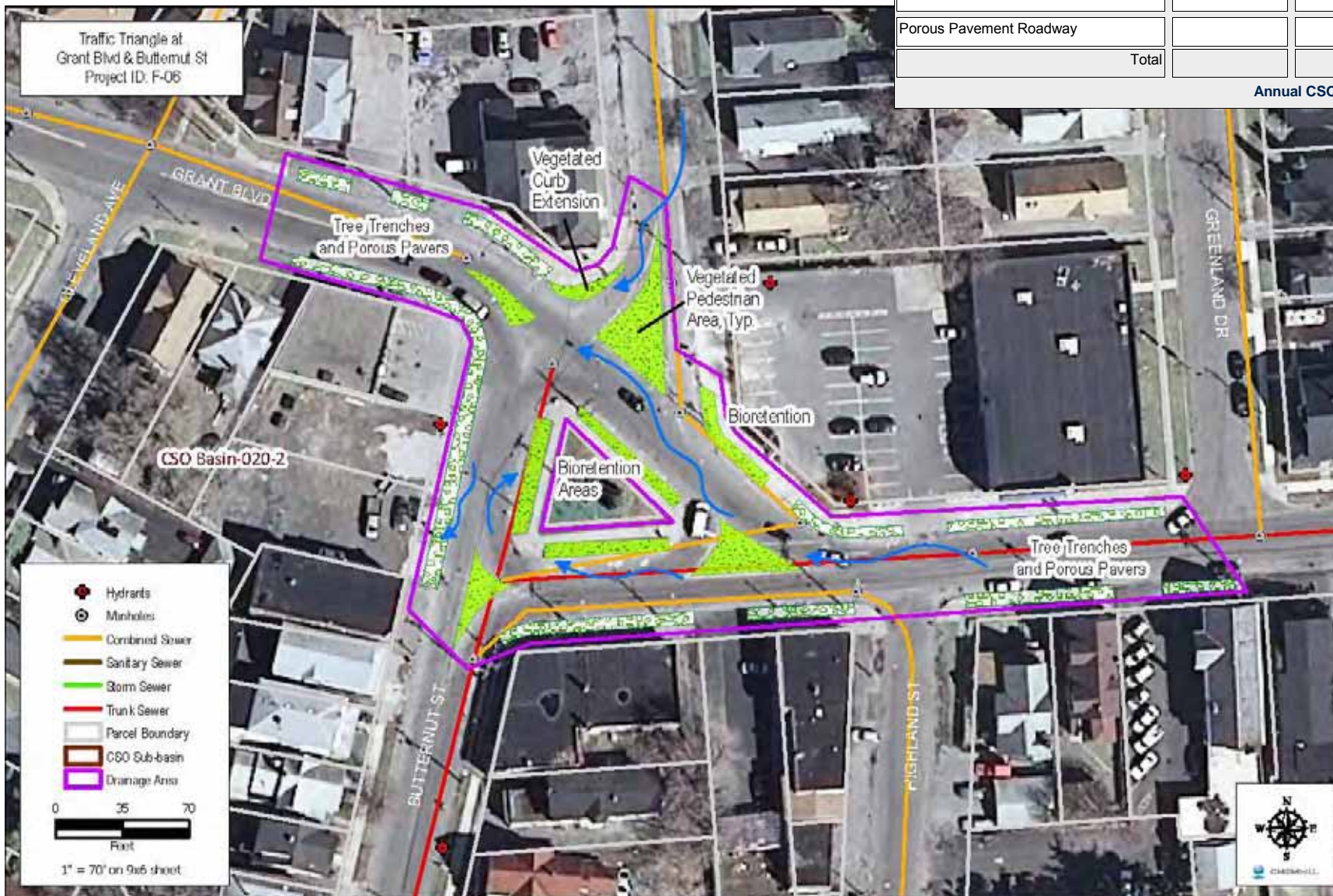
Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Street	103,000		1,819,000
Total	103,000		1,819,000
Annual CSO Reduction (gal)			1,291,490





Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention			
Tree Trench Standard			
Porous Pavement Roadway			
Total			
Annual CSO Reduction (gal)			





Project ID/Name: F-07 Magnarelli Community Center Green Roof

Proj Address: 2308 Grant Blvd

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Green Roof	12,000	12,000	215,000
Total	12,000	12,000	215,000
Annual CSO Reduction (gal)			152,650



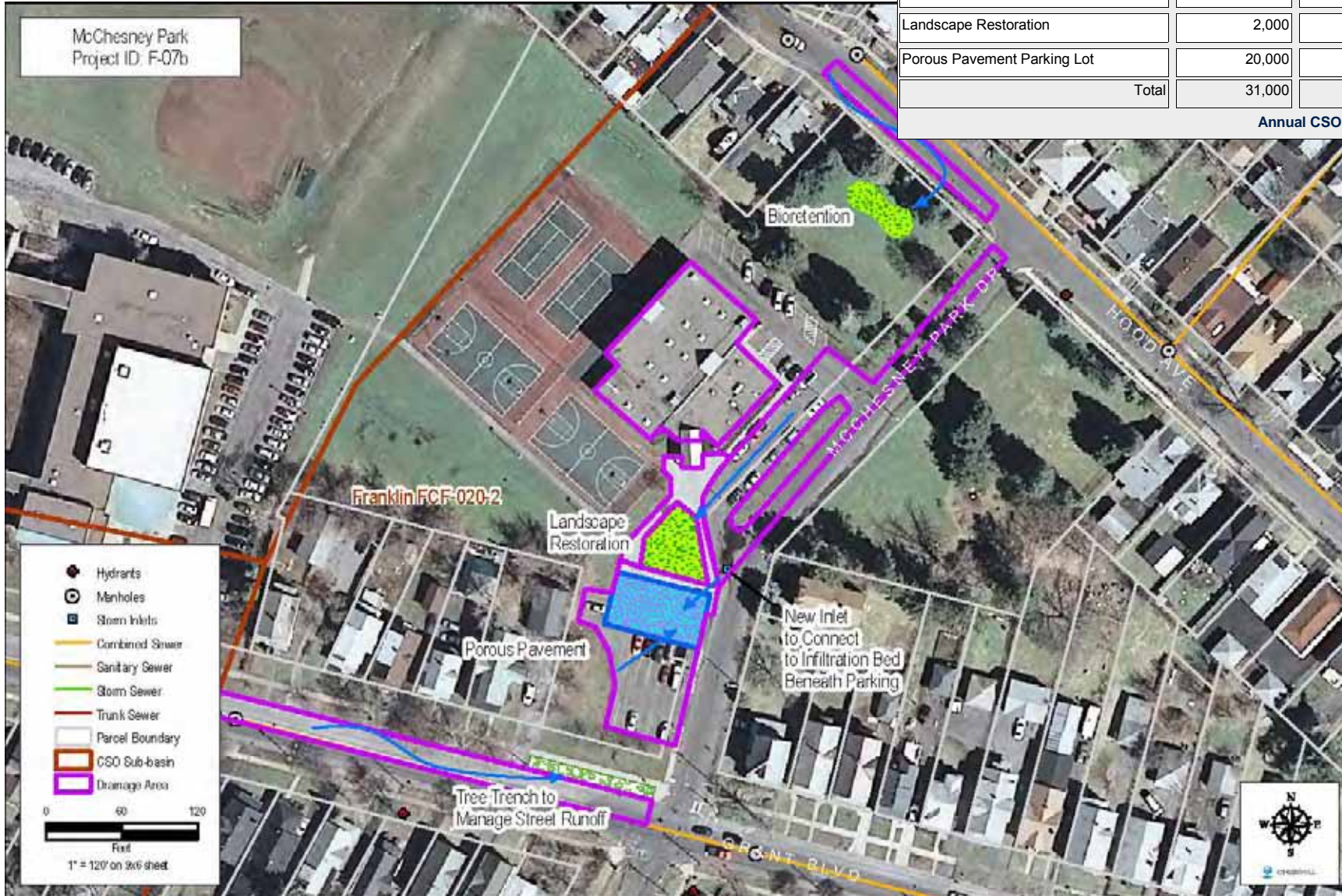


Project ID/Name: F-07b Green Park: McChesney Park

Proj Address: 2308 Grant Blvd

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	7,000	1,000	123,000
Bioretention	2,000	1,000	42,000
Landscape Restoration	2,000	2,000	
Porous Pavement Parking Lot	20,000	3,000	354,000
Total	31,000	7,000	519,000
Annual CSO Reduction (gal)			368,490



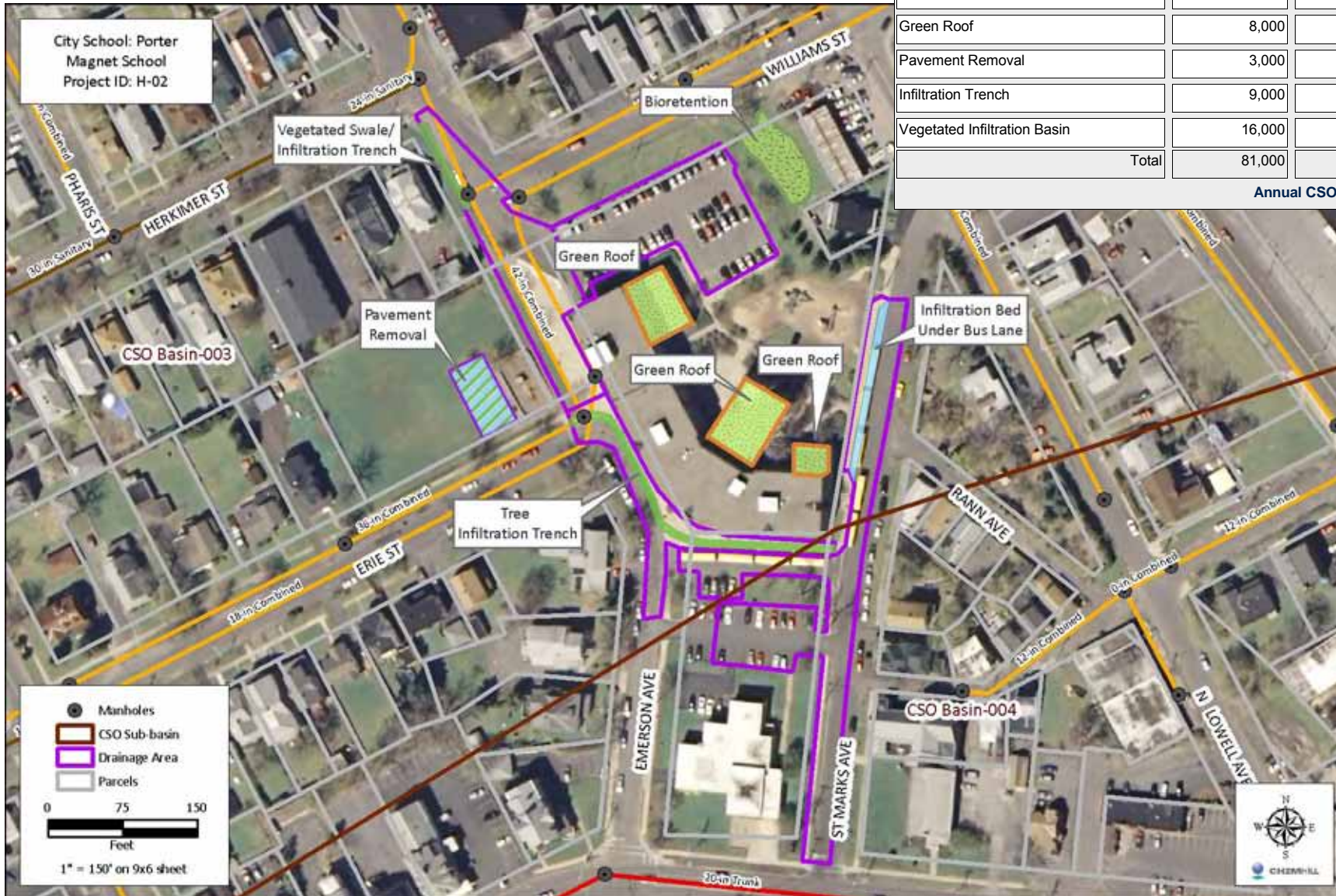


Project ID/Name: H-02 Green School: Porter Magnet School

Proj Address: 512 Emerson Ave

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	18,000	3,000	318,000
Infiltration Bed	27,000	2,000	482,000
Green Roof	8,000	8,000	135,000
Pavement Removal	3,000	3,000	47,000
Infiltration Trench	9,000	1,000	161,000
Vegetated Infiltration Basin	16,000	1,000	273,000
Total	81,000	18,000	1,416,000
Annual CSO Reduction (gal)			1,005,360





Project ID/Name: H-03 Green School: Bellevue Middle School

Proj Address: 1607 S. Geddes St

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	15,000	15,000	267,000
Total	15,000	15,000	267,000
Annual CSO Reduction (gal)			189,570



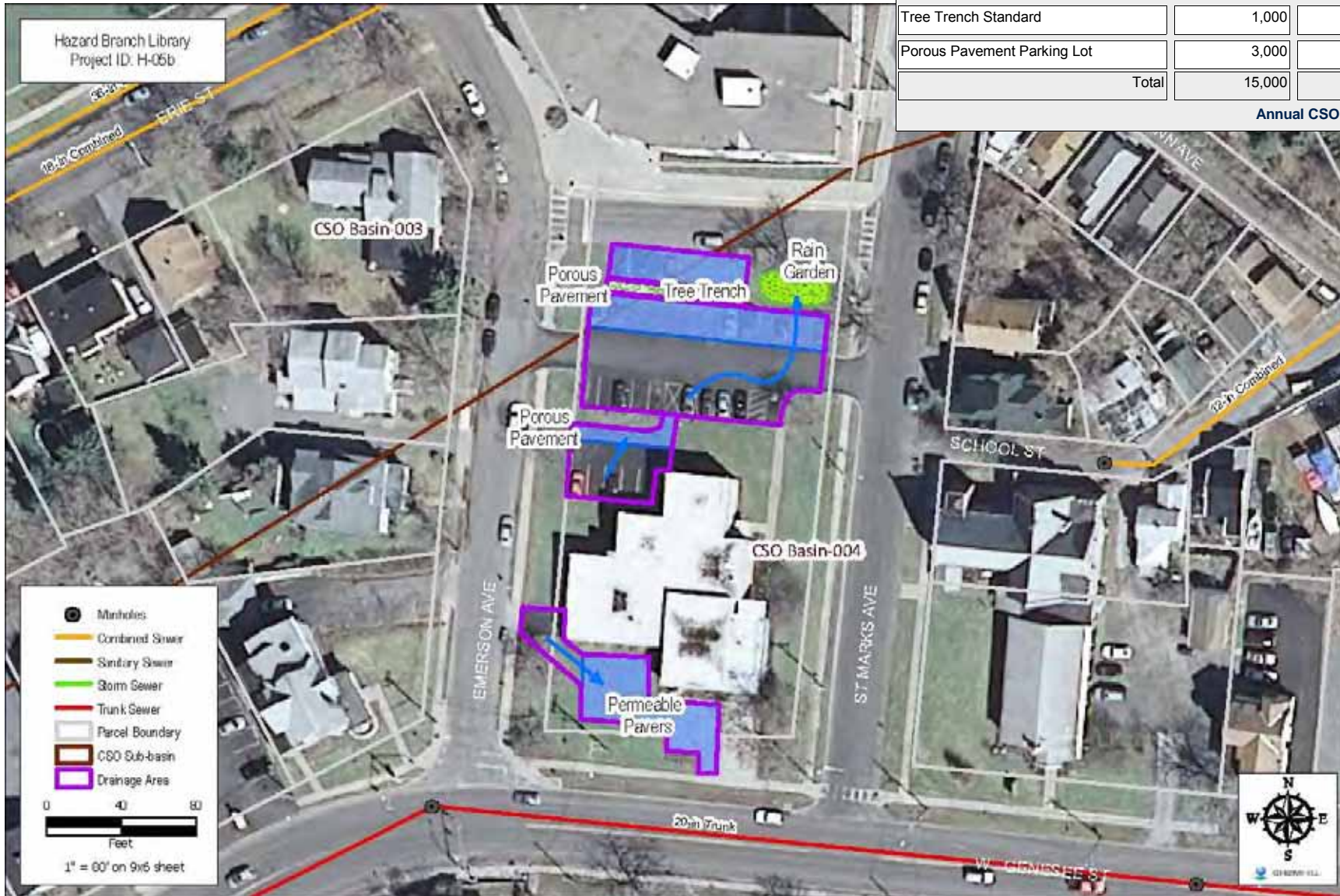


Project ID/Name: H-05b Hazard Branch Library Site Improvements

Proj Address: 1620 West Genesee St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	11,000	4,000	197,000
Bioretention	000	000	4,000
Tree Trench Standard	1,000	1,000	12,000
Porous Pavement Parking Lot	3,000	2,000	57,000
Total	15,000	7,000	270,000
Annual CSO Reduction (gal)			191,700



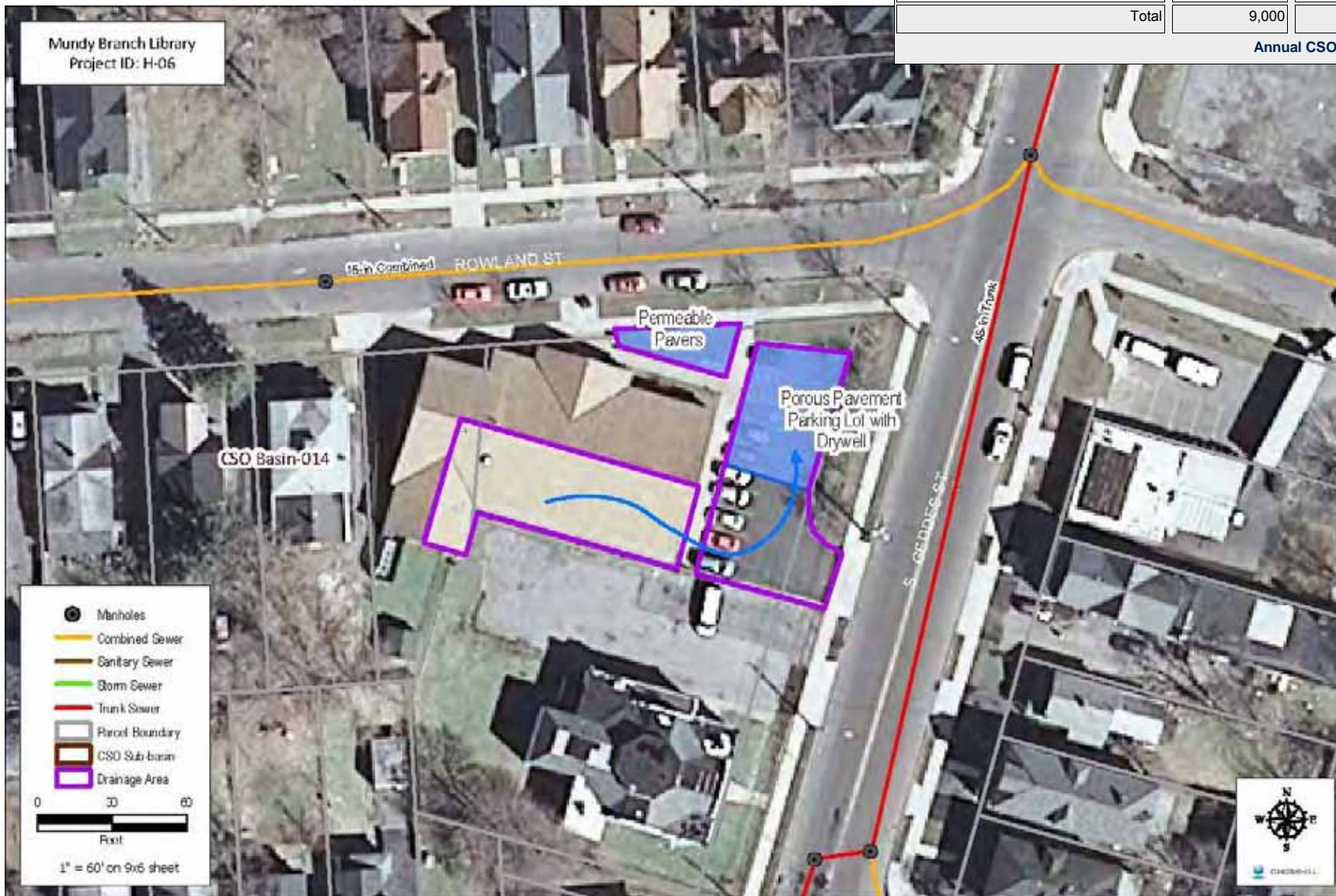


Project ID/Name: H-06 Mundy Branch Library

Proj Address: 1204 South Geddes St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Porous Pavement Parking Lot	8,000	2,000	137,000
Stormwater Planter - Sidewalk	1,000	1,000	11,000
Total	9,000	3,000	148,000
Annual CSO Reduction (gal)			105,080



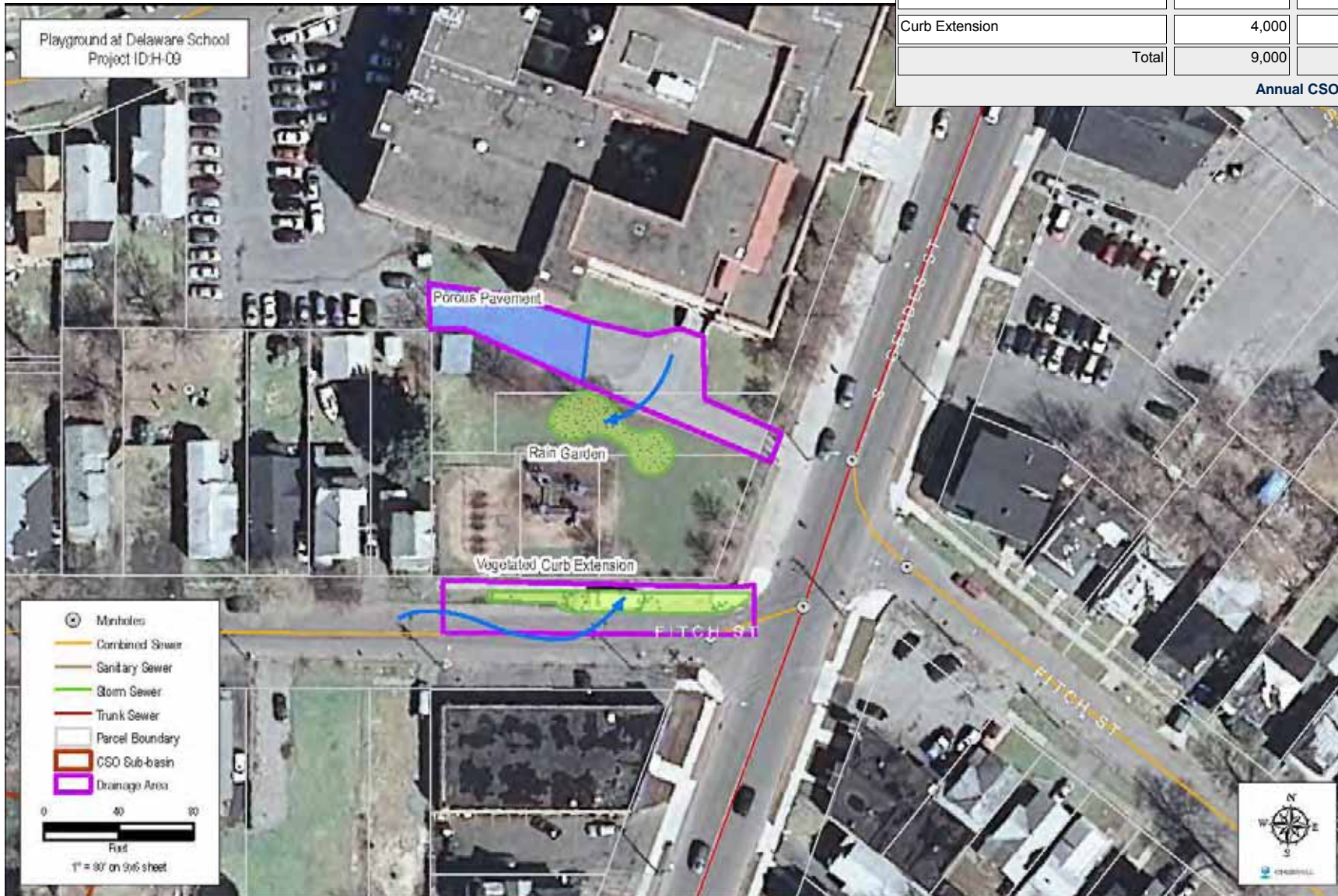


Project ID/Name: H-09 Green School: Playground at Delaware School

Proj Address: 900 S Geddes St

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	2,000	2,000	41,000
Bioretention	3,000	1,000	60,000
Curb Extension	4,000	1,000	77,000
Total	9,000	4,000	178,000
Annual CSO Reduction (gal)			126,380





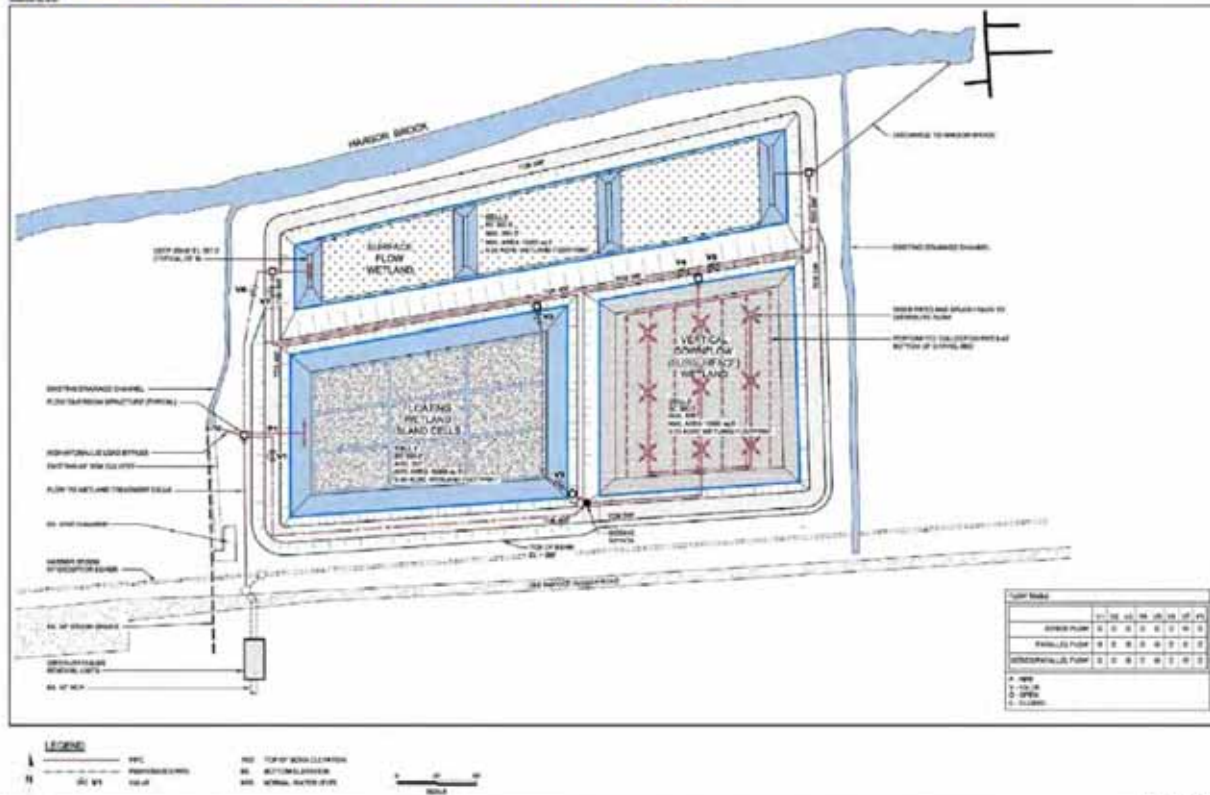
Project ID/Name: H-14 Harbor Brook CSO 018 Wetland Project

Proj Address: Velasko Rd & Grand Ave

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Constructed Wetland			
Total			
Annual CSO Reduction (gal)			

H-14 Harbor Brook CSO 018 Wetland Project



CH2M HILL
CONCEPT DESIGN OF THE
CONSTRUCTED WETLANDS TREATMENT FACILITY
Harbor Brook CSO 018 Treatment Wetland
City of Syracuse, Onondaga County, NY
FIGURE 3



Project ID/Name: H-22 Green Street: 800 block Park Ave

Proj Address: 800 block Park Ave @ Liberty St

Parcel Owner: City of Syracuse





Project ID/Name: H-23 GIF#023 K & C Auto Body Shop

Proj Address: 2104 Erie Boulevard West and 1207 Willis Avenue

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	12,000	12,000	215,000
Total	12,000	12,000	215,000
Annual CSO Reduction (gal)			152,650



Not to scale.



Proposed porous asphalt lot:

PROJECT MAP

GIF PROJECT - K&C AUTO BODY SYRACUSE, NEW YORK

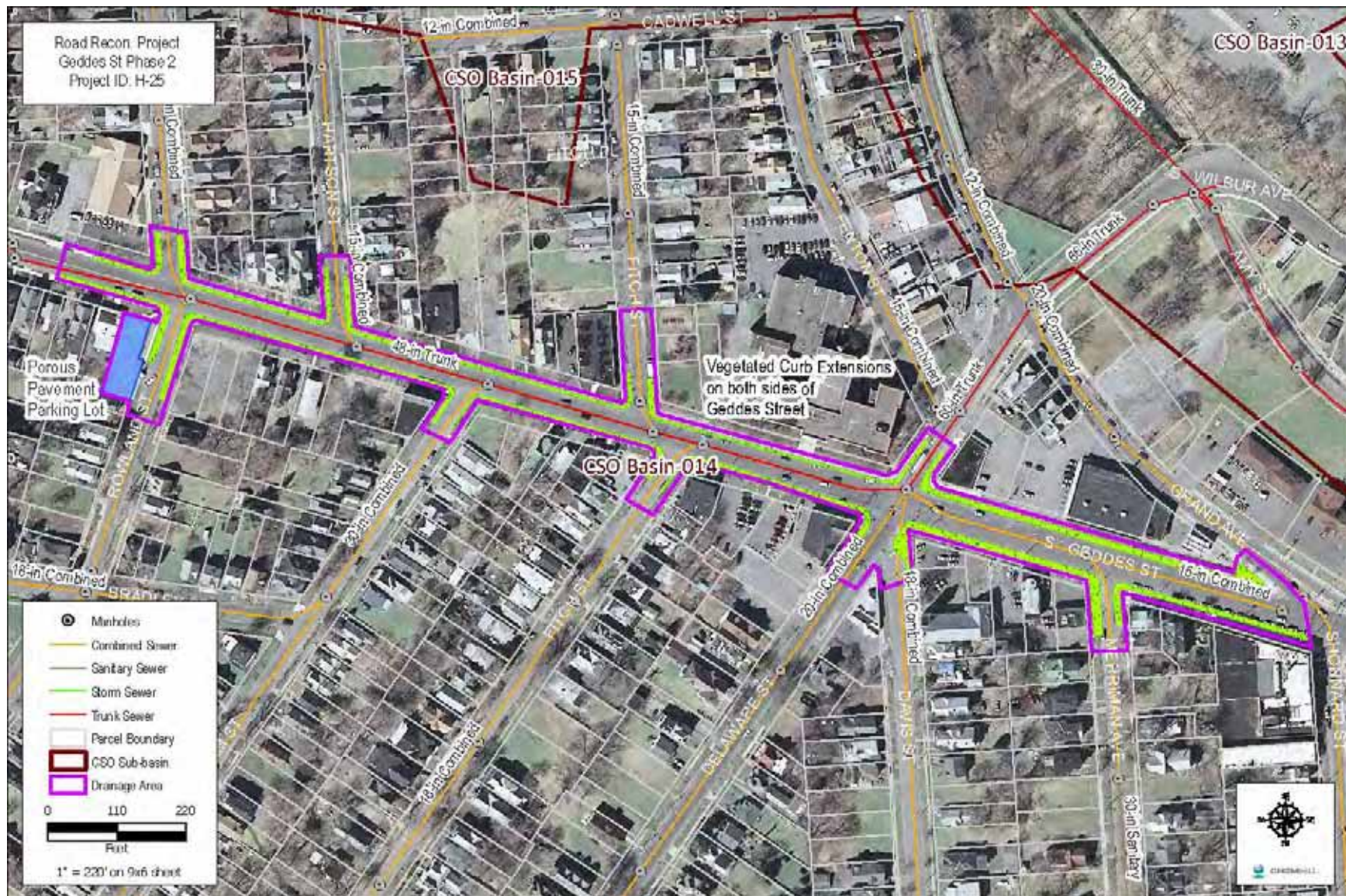



DATE: 11/08/10
DRAWN BY: RET

FIGURE 1



Parcel Owner: City of Syracuse




 Project ID/Name: H-28 GIF#036 Dependable Paving: 945 Emerson
 Proj Address: 945 Emerson Ave
 Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	2,000	2,000	47,000
Cistern/Rain Barrel	1,000	2,000	28,000
Total	3,000	4,000	75,000
Annual CSO Reduction (gal)			53,250



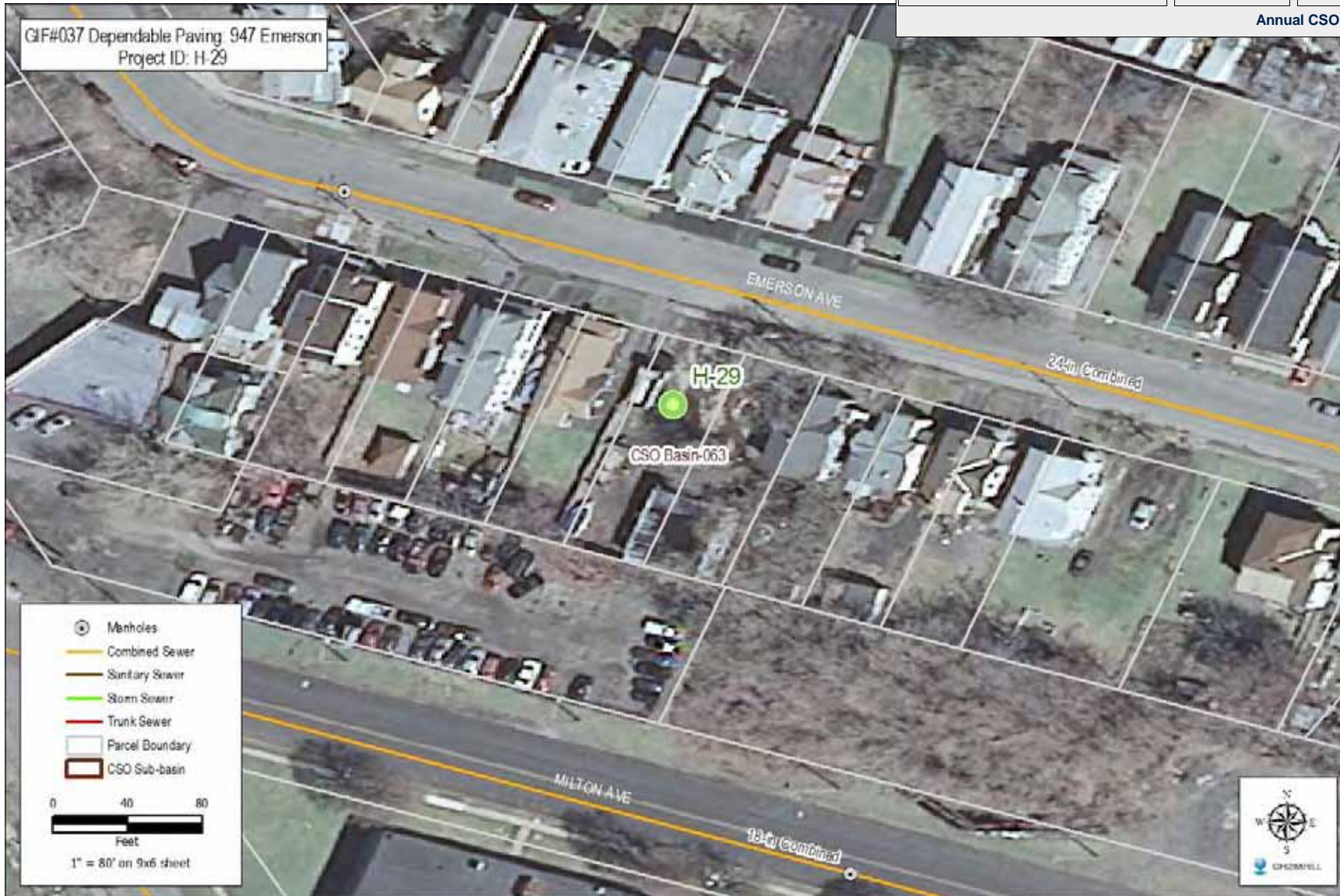


Project ID/Name: H-29 GIF#037 Dependable Paving: 947 Emerson

Proj Address: 947 Emerson Ave

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	4,000	2,000	76,000
Total	4,000	2,000	76,000
Annual CSO Reduction (gal)			53,960

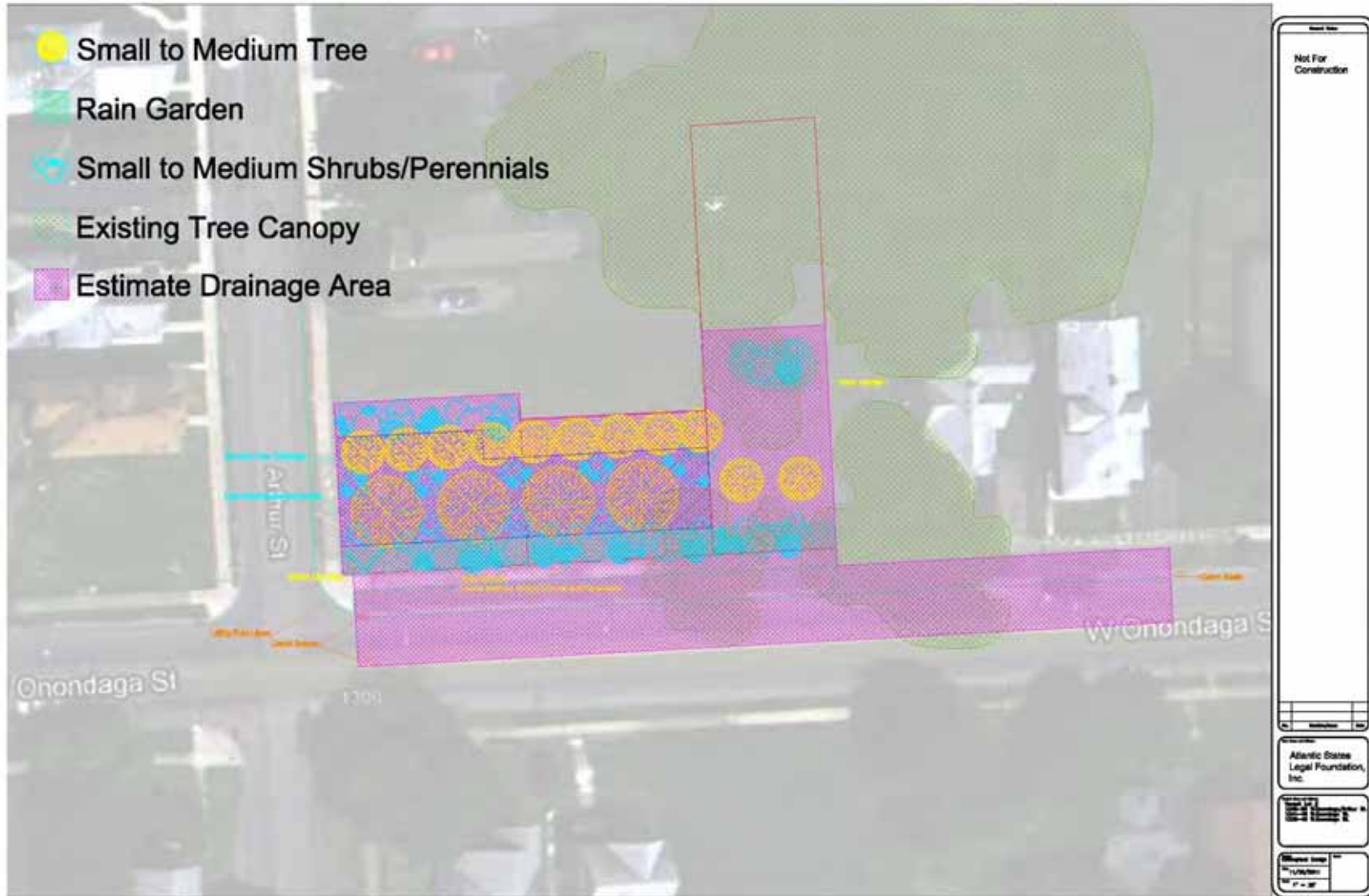




Project ID/Name: H-30 Vacant Lot Project #3

Proj Address: Arthur St and W Onondaga St

Parcel Owner: City of Syracuse



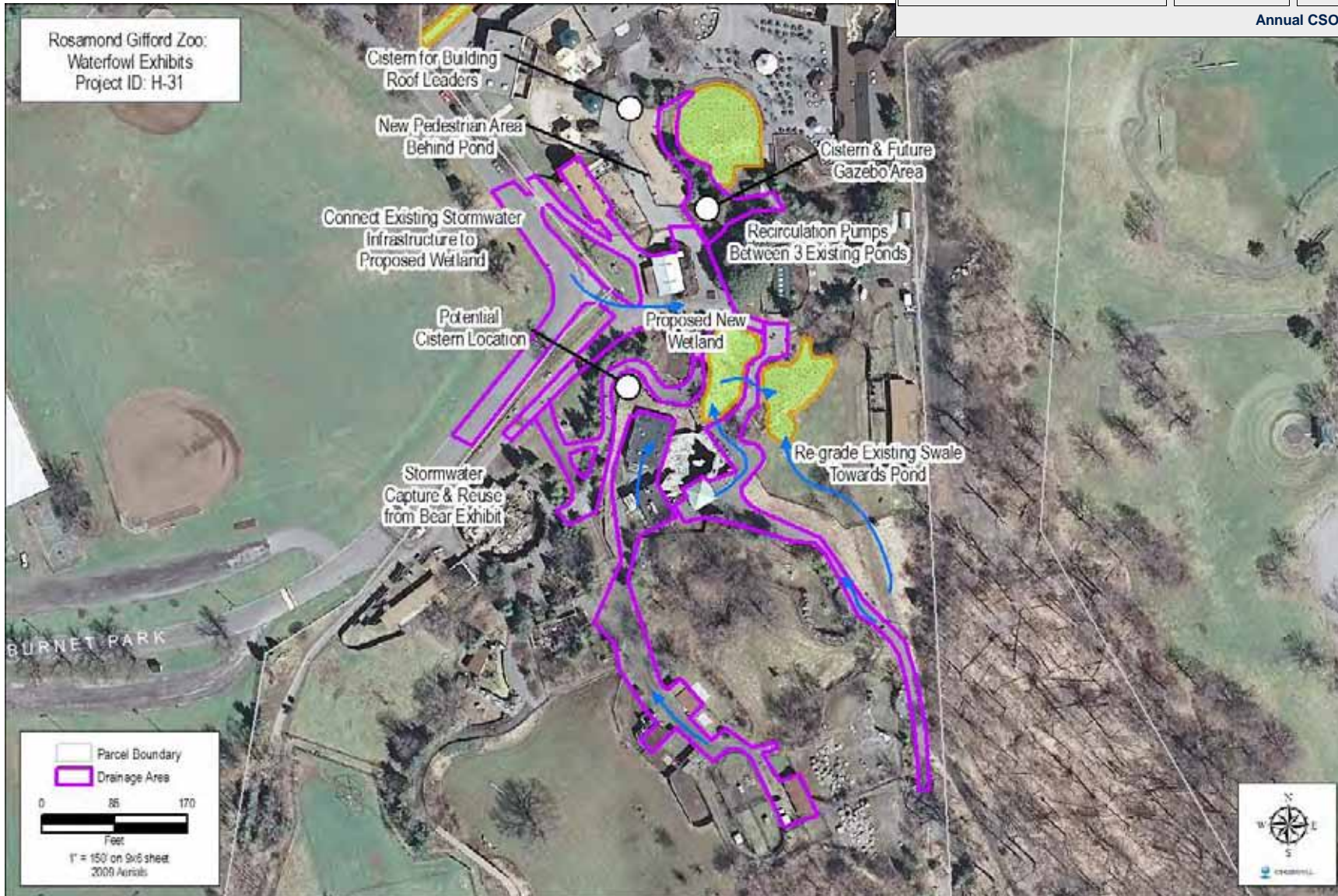


Project ID/Name: H-31 Rosamond Gifford Zoo: Waterfowl Exhibits

Proj Address: One Conservation Place

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Constructed Wetland	75,000	18,000	1,312,000
Total	75,000	18,000	1,312,000
Annual CSO Reduction (gal)			931,520



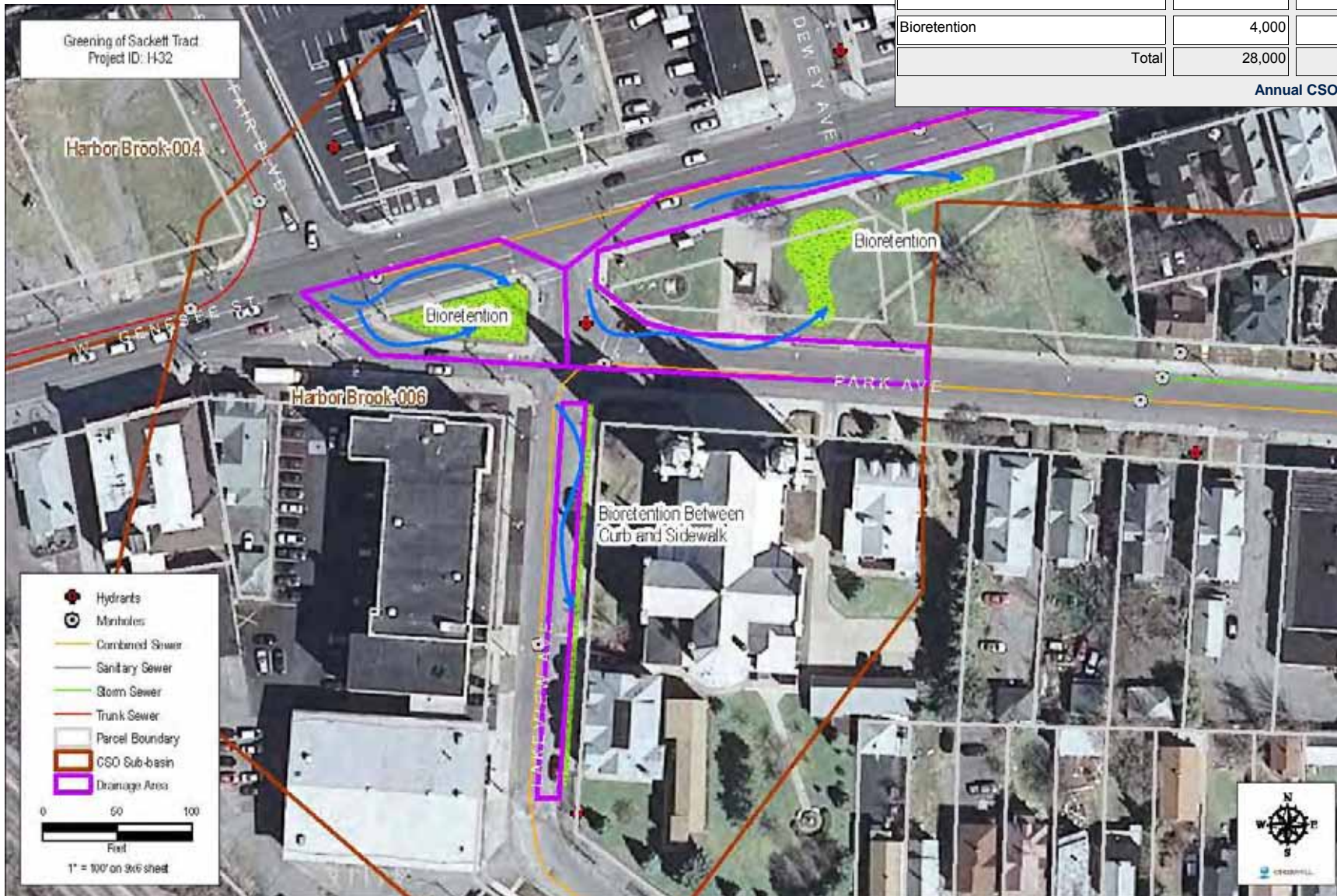


Project ID/Name: H-32 Greening of Sackett Tract

Proj Address: W Genesee St., Park Ave., Lakeview Ave.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	9,000	2,000	152,000
Bioretention	15,000	4,000	268,000
Bioretention	4,000	1,000	63,000
Total	28,000	7,000	483,000
Annual CSO Reduction (gal)			342,930



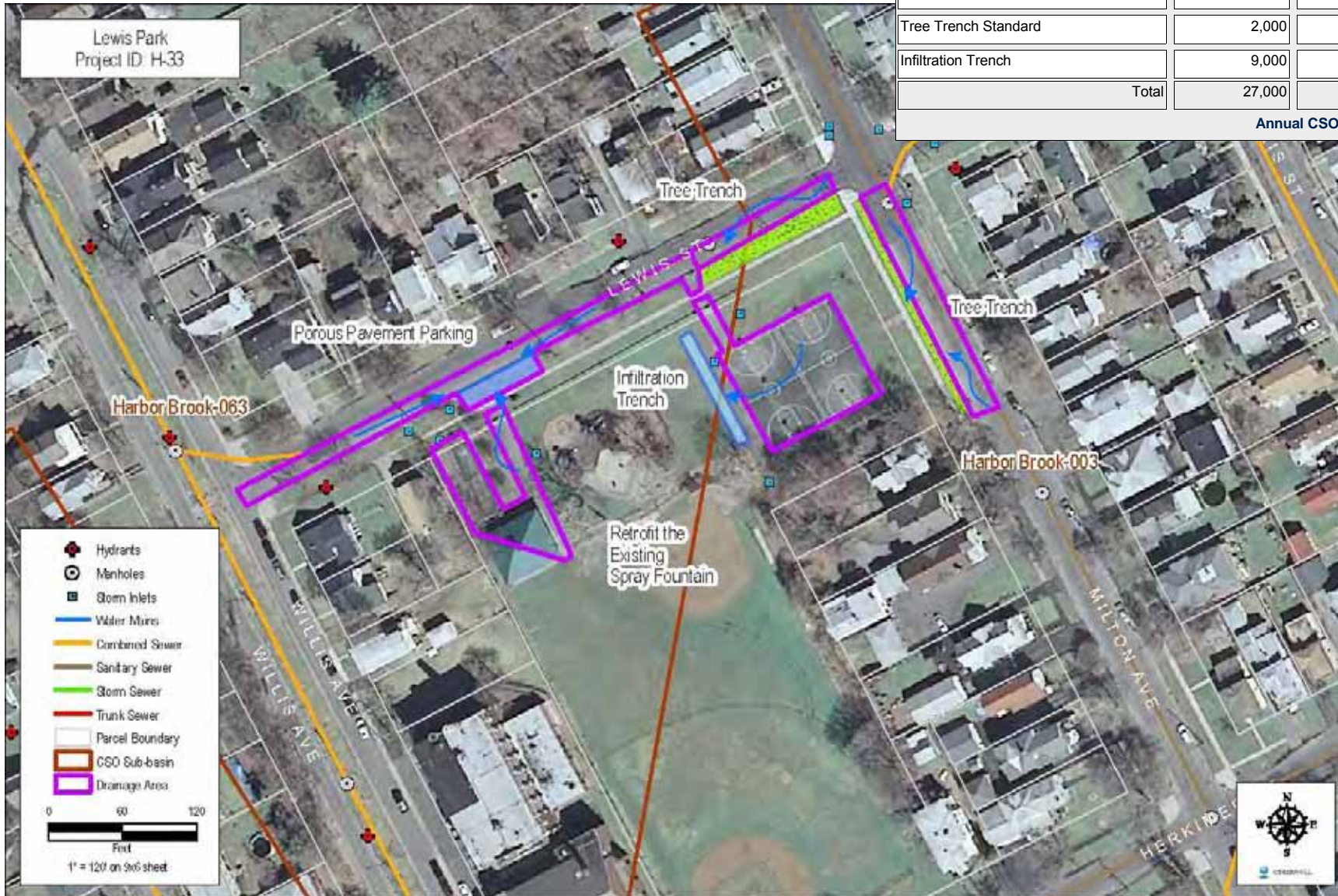


Project ID/Name: H-33 Green Park: Lewis Park Enhancements

Proj Address: 305 Lewis St and 825 Milton Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	4,000	2,000	79,000
Porous Pavers Parking Lot Heavy Duty	12,000	1,000	220,000
Tree Trench Standard	2,000	2,000	38,000
Infiltration Trench	9,000	1,000	159,000
Total	27,000	6,000	496,000
Annual CSO Reduction (gal)			352,160



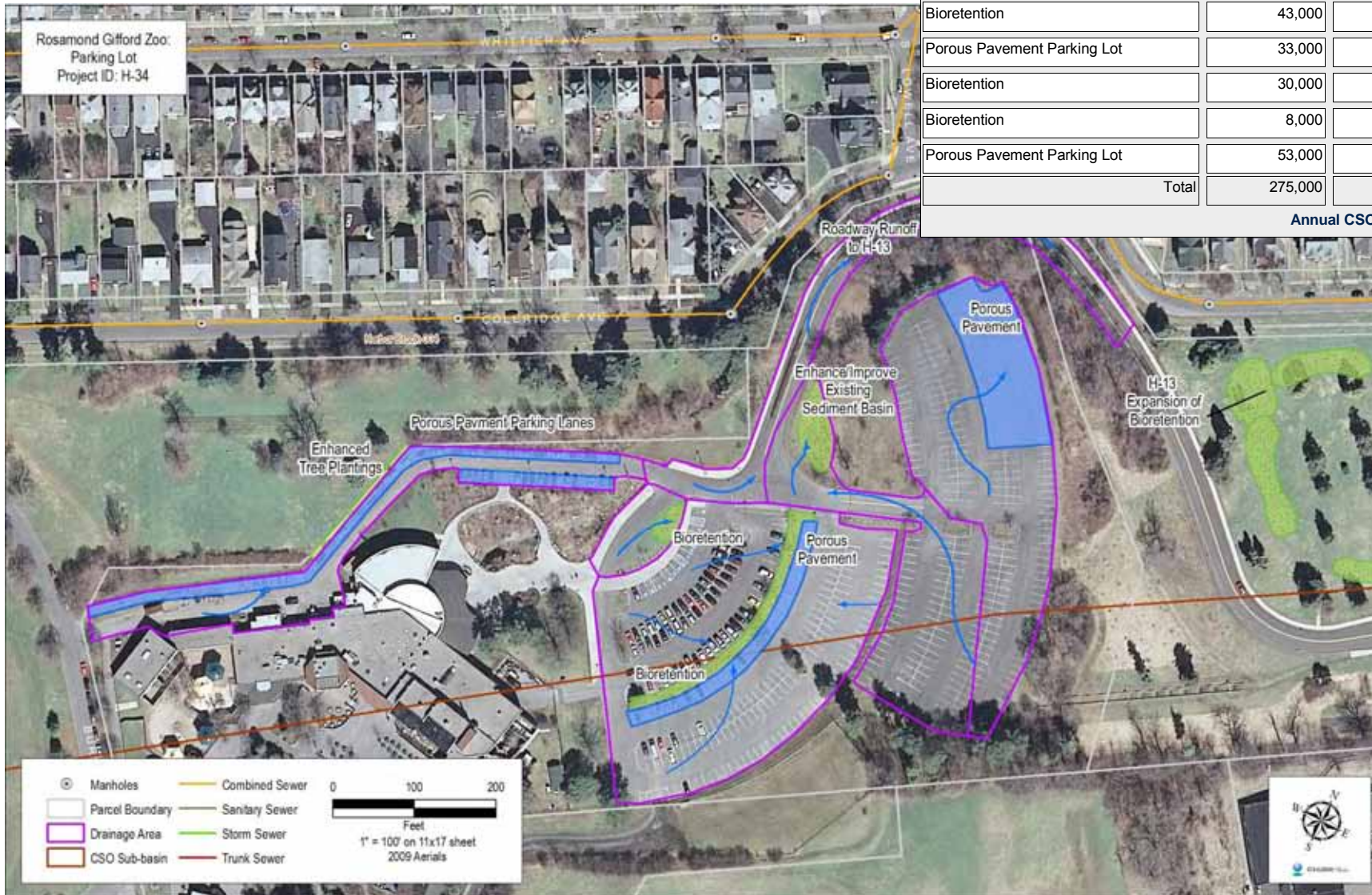


Project ID/Name: H-34 Rosamond Gifford Zoo: Parking Lot

Proj Address: One Conservation Place

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	65,000	16,000	1,152,000
Vegetated Infiltration Basin	43,000	3,000	750,000
Bioretention	43,000	8,000	757,000
Porous Pavement Parking Lot	33,000	10,000	579,000
Bioretention	30,000	4,000	520,000
Bioretention	8,000	1,000	143,000
Porous Pavement Parking Lot	53,000	6,000	933,000
Total	275,000	48,000	4,834,000
Annual CSO Reduction (gal)			3,432,140





Parcel Owner: City of Syracuse

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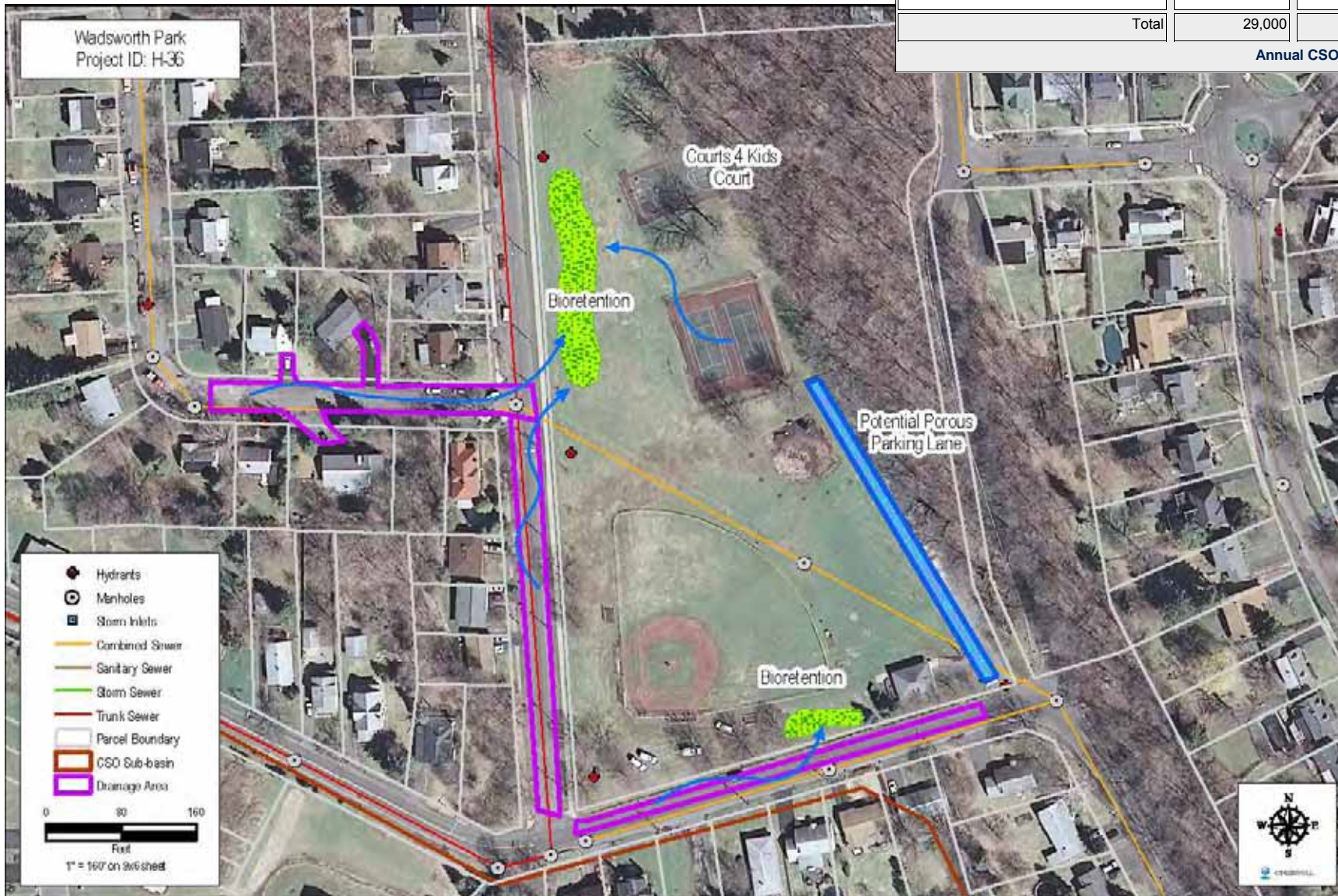


Project ID/Name: H-36 Green Park: Wadsworth Park

Proj Address: 1204 Glenwood Ave and Wolcott Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	23,000	8,000	405,000
Bioretention	6,000	2,000	100,000
Total	29,000	10,000	505,000
Annual CSO Reduction (gal)			358,550





Project ID/Name: H-37 Vacant Lot: Delaware/Dudley Orchard

Proj Address: 100,102 Dudley & 401 Delaware

Parcel Owner: City of Syracuse

Dudley_St_12062011.dwg



General Notes		
Concept * Not for Construction		
Rev	Description/Revised	Date
Atlantic States Legal Foundation, Inc. 		
Project Name and Address: VLP 100,102 Dudley St./401 Delaware Syracuse New York, 13204		
Sheet: Vacant Lot #		1 of 1
Date:		
Scale: 1" = 40'		



Project ID/Name: H-38 Vacant Lot: Putnam Street

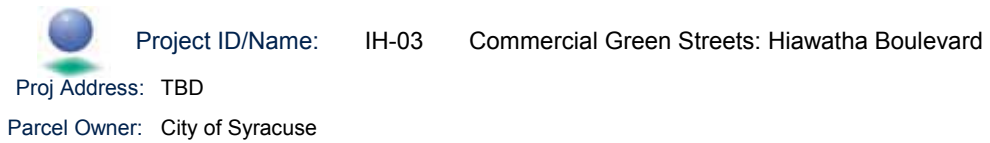
Proj Address: 224, 226 Putnam ST

Parcel Owner: City of Syracuse

Drawing1.dwg



General Notes		
Concept * Not for Construction		
No.	Description/Notes	Date
Project Name and Address VLP 224,226 Putnam St. Syracuse New York, 13204		
Project Let Program		Page
1" = 30'		1 of 1



Parcel Owner: City of Syracuse



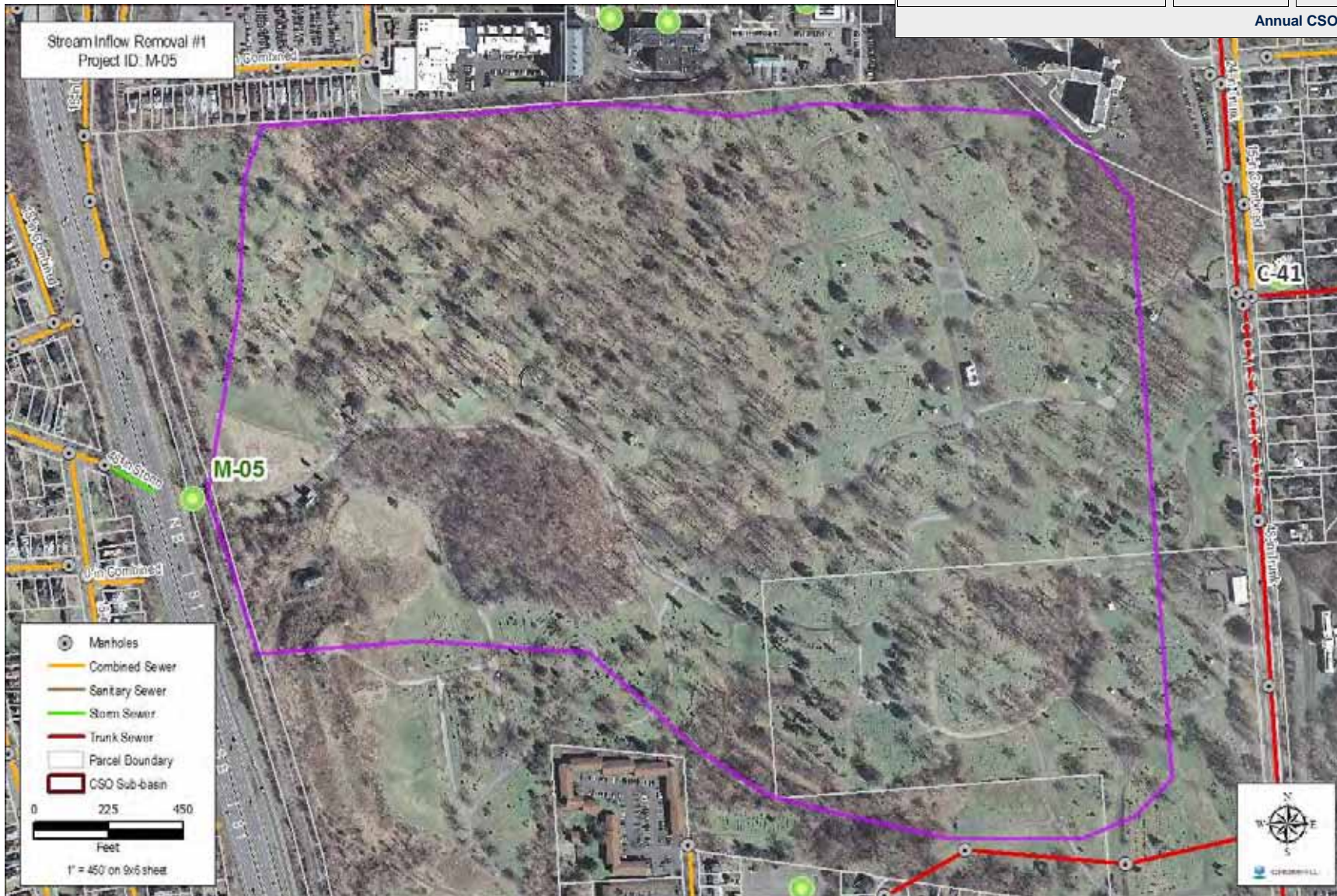


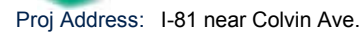
Project ID/Name: M-05 Stream Inflow Removal #1

Proj Address: I-81 near Woodland Ave.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Stream Inflow Removal			
Total			
Annual CSO Reduction (gal)			

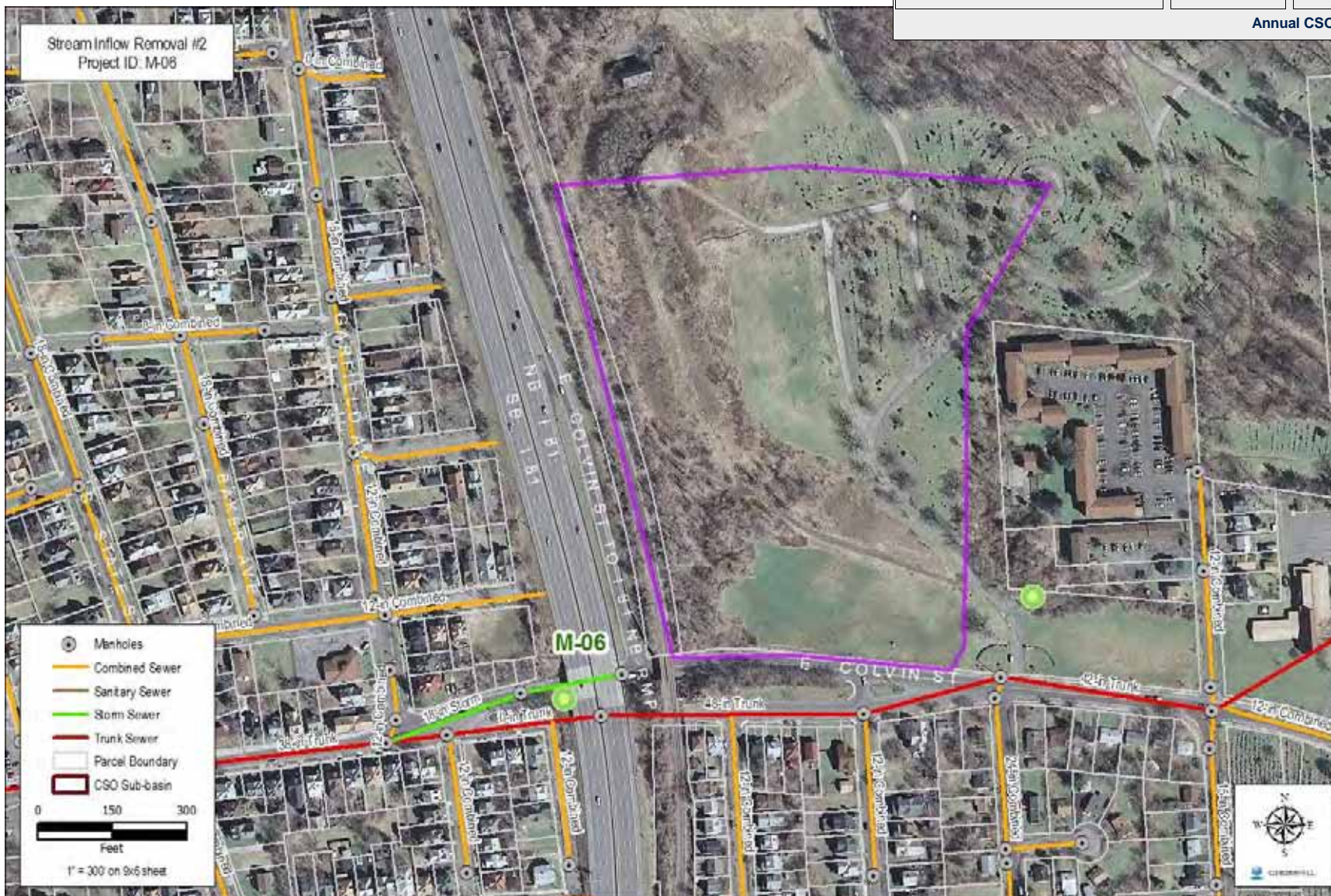




Parcel Owner: City of Syracuse

Project ID/Name: M-06 Stream Inflow Removal #2

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Stream Inflow Removal			
Total			
Annual CSO Reduction (gal)			





Project ID/Name: M-07 Stream Inflow Removal #3

Proj Address: Oakwood Cemetery near Moore Ave.

Parcel Owner: City of Syracuse

Green Technology

Impervious
Area (SF)

Green Infrastructure
Area (SF or Gal)

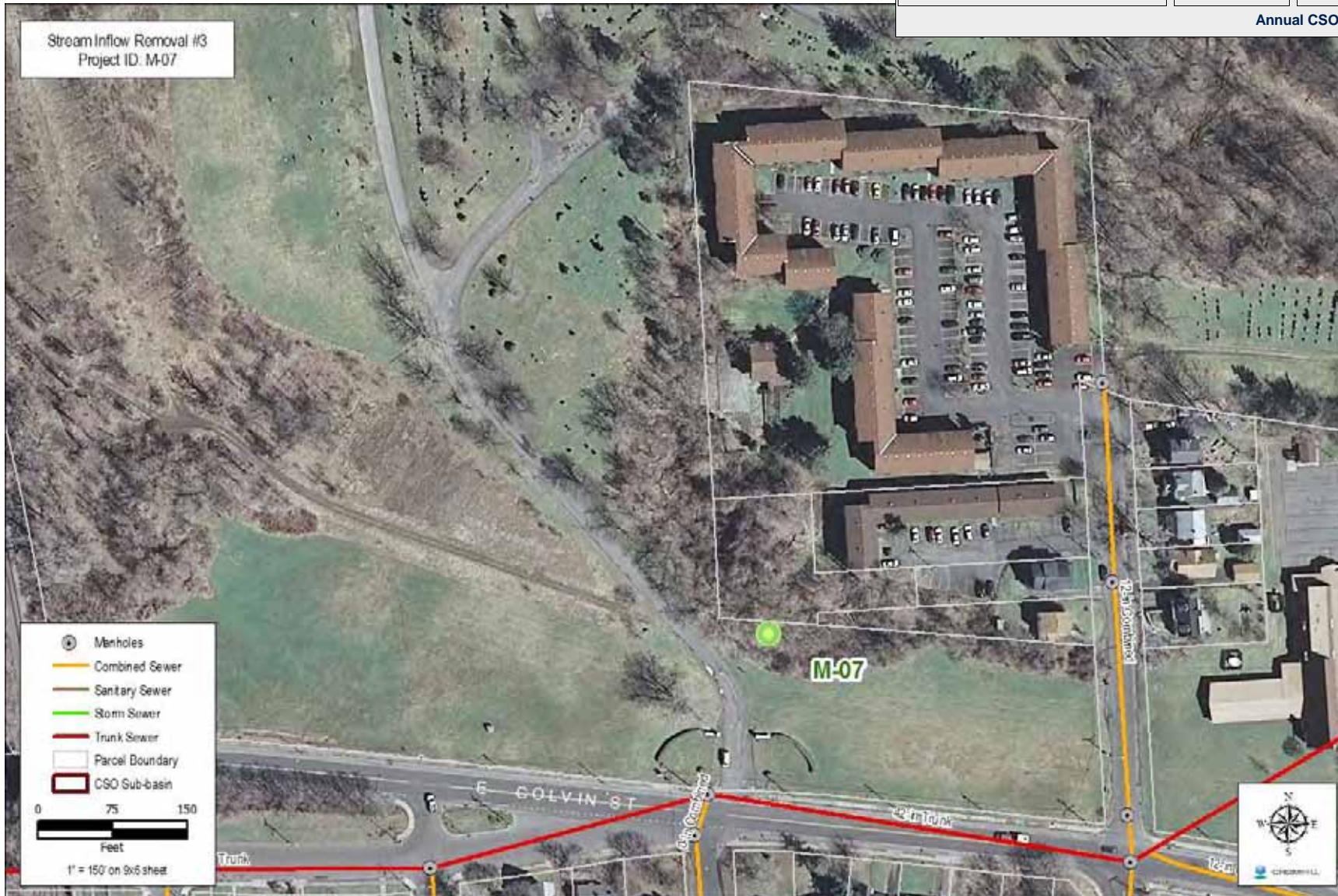
Annual Capture
(gal)

Stream Inflow Removal

Total

Annual CSO Reduction (gal)

Stream Inflow Removal #3
Project ID: M-07



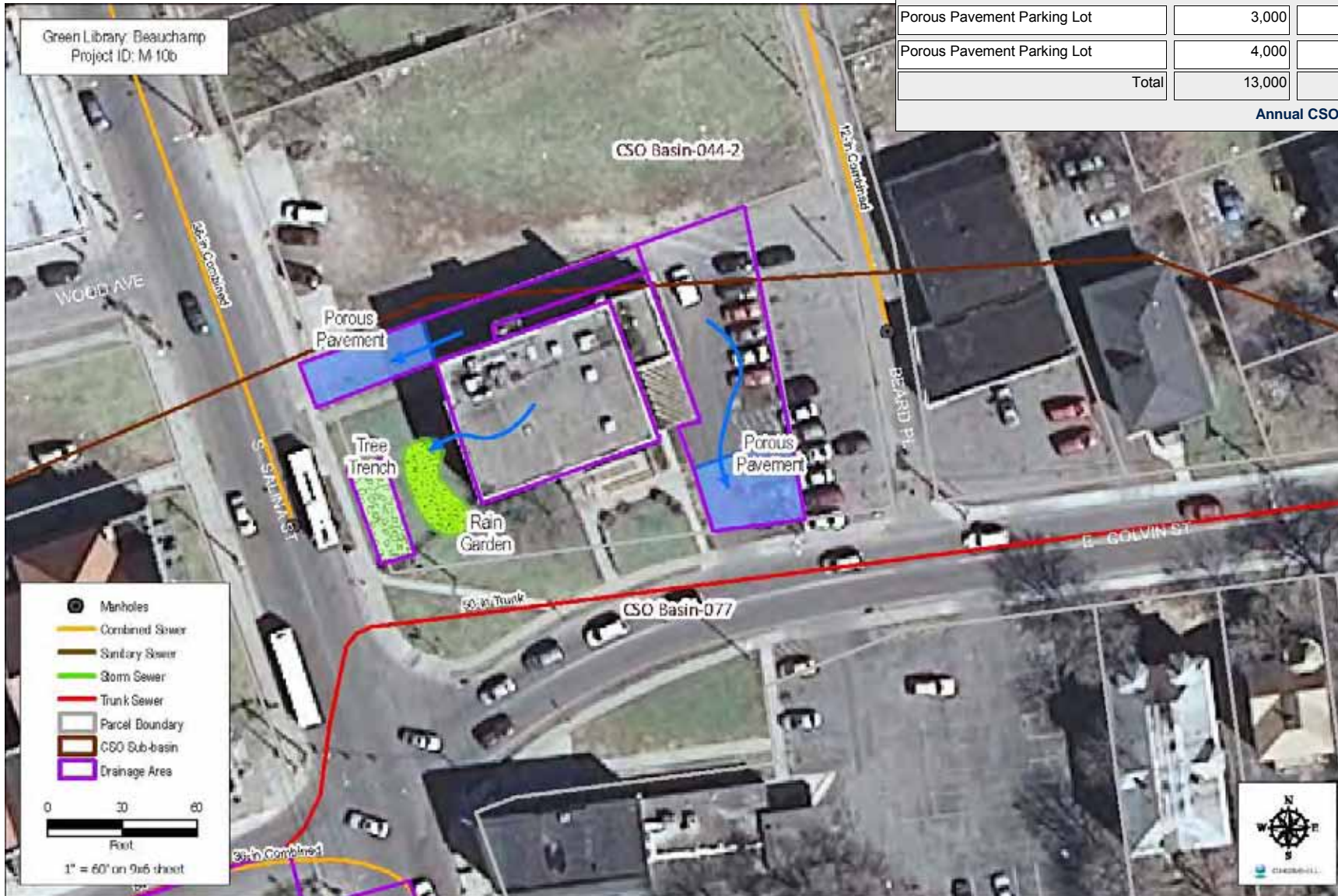


Project ID/Name: M-10b Beauchamp Library - site

Proj Address: 2111 S. Salina St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF)	Annual Capture (gal)
Bioretention	5,000	1,000	88,000
Tree Trench Standard	1,000	1,000	10,000
Porous Pavement Parking Lot	3,000	1,000	48,000
Porous Pavement Parking Lot	4,000	1,000	79,000
Total	13,000	4,000	225,000
Annual CSO Reduction (gal)			159,750



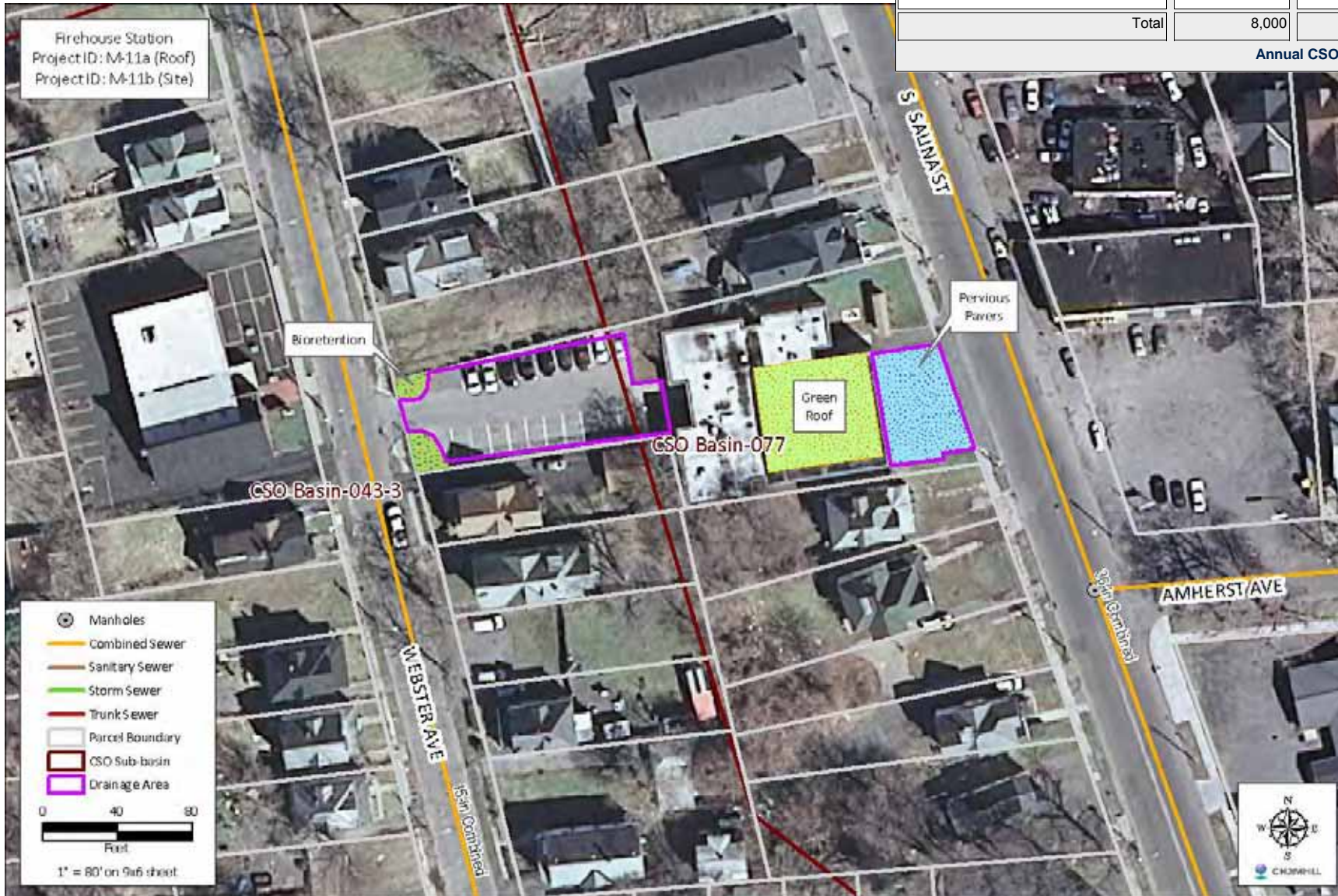


Project ID/Name: M-11b SFD Firehouse #8 at Salina St (Site)

Proj Address: 2412 S. Salina St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavers Parking Lot Heavy Duty	2,000	2,000	43,000
Bioretention	6,000	1,000	111,000
Total	8,000	3,000	154,000
Annual CSO Reduction (gal)			109,340



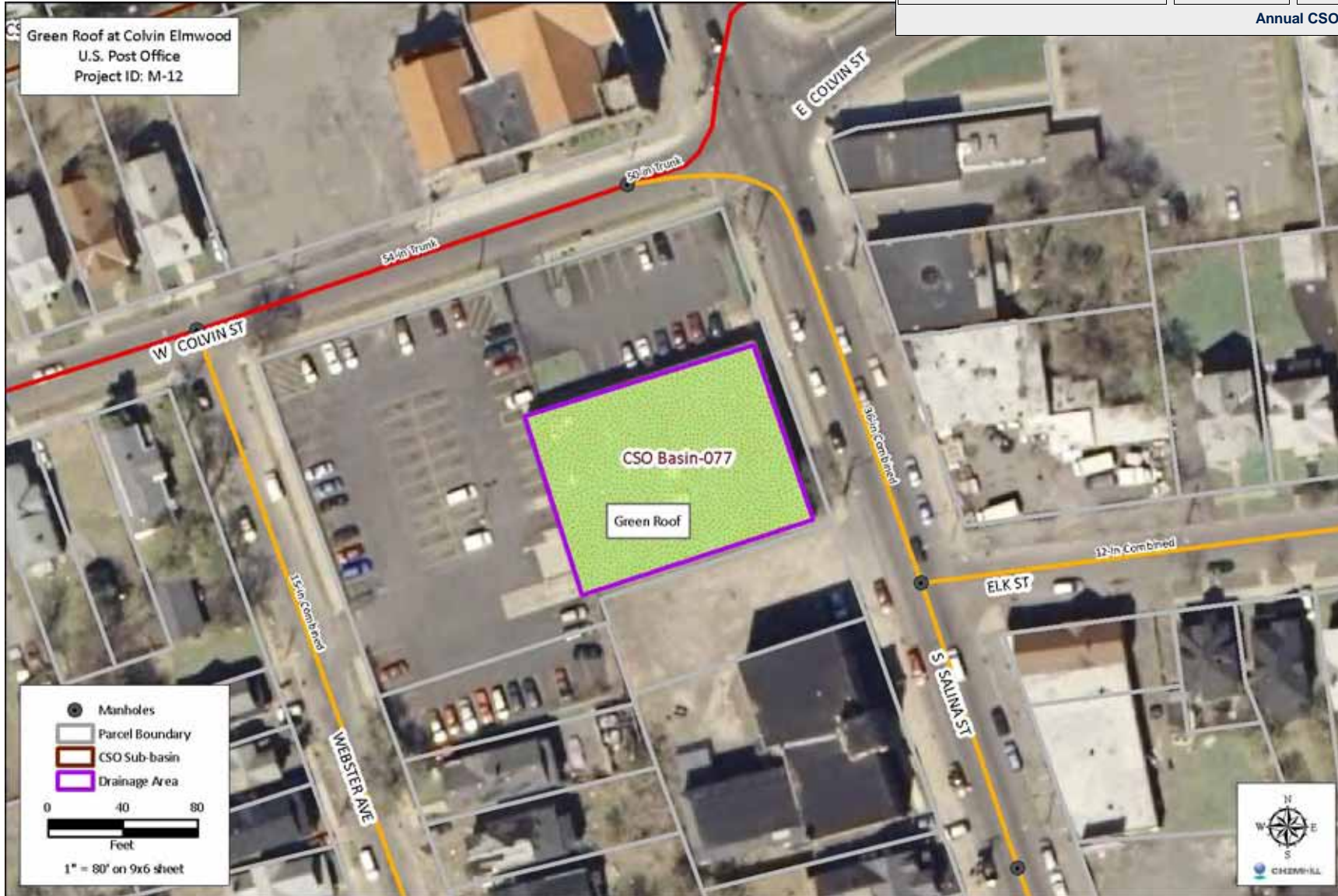


Project ID/Name: M-12a US Post Office on Salina St: Green Roof

Proj Address: 2200 S. Salina St

Parcel Owner: United States Postal Service

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	13,000	13,000	226,000
Total	13,000	13,000	226,000
Annual CSO Reduction (gal)			160,460





Project ID/Name: M-12b US Post Office on Salina Street: Site Improvements

Proj Address: 2200 S. Salina St

Parcel Owner: United States Postal Service

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Enhanced Street Trees	6,000	1,000	113,000
Infiltration Trench	6,000	1,000	114,000
Infiltration Trench	28,000	3,000	487,000
Enhanced Street Trees	1,000	1,000	24,000
Pavement Removal	1,000	1,000	9,000
Enhanced Street Trees	5,000	1,000	88,000
Total	47,000	8,000	835,000
Annual CSO Reduction (gal)			592,850



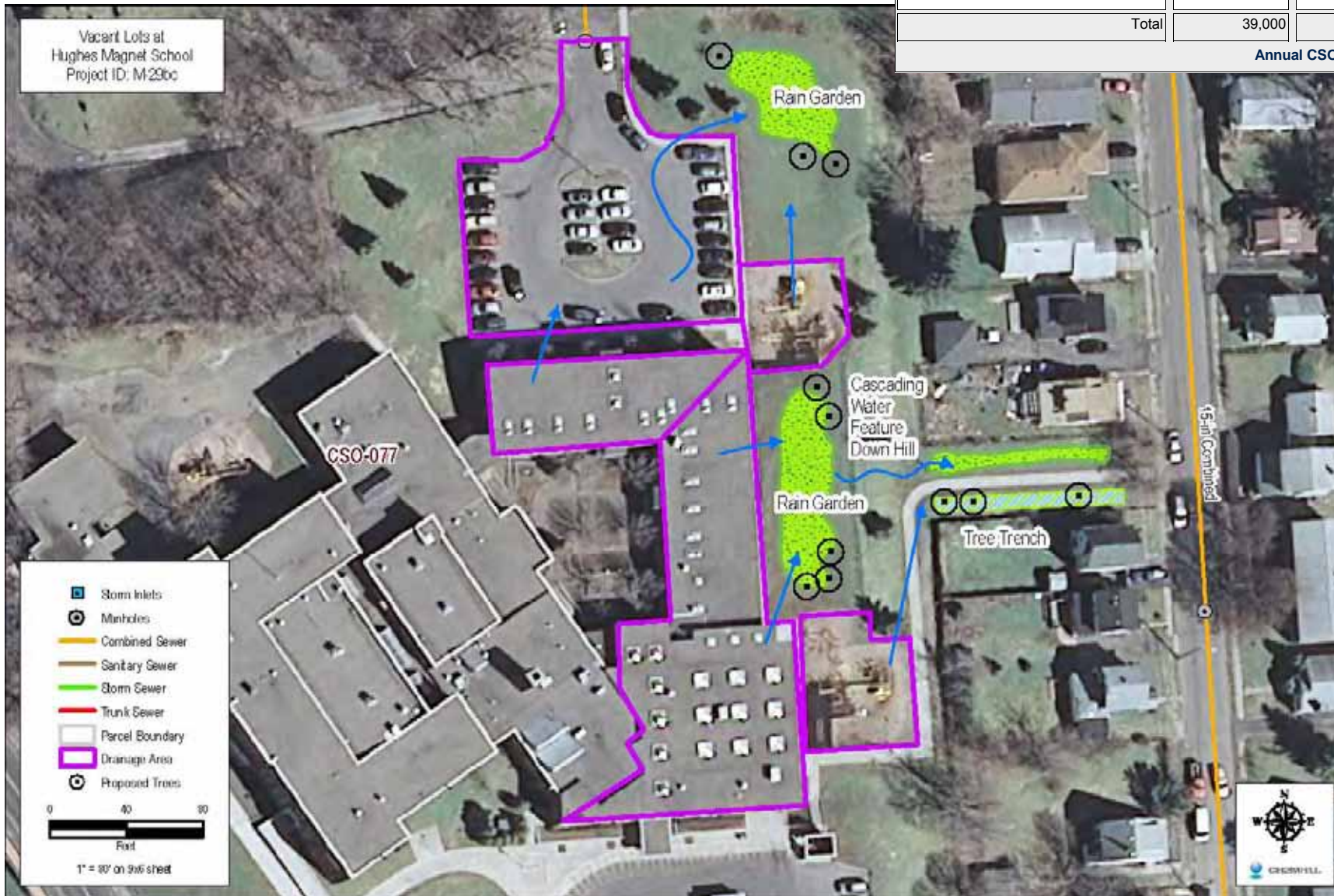


Project ID/Name: M-29b Vacant Lot: 147 Hughes Place

Proj Address: 147 Hughes Place

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	24,000	2,000	423,000
Bioretention	15,000	3,000	266,000
Total	39,000	5,000	689,000
Annual CSO Reduction (gal)			489,190



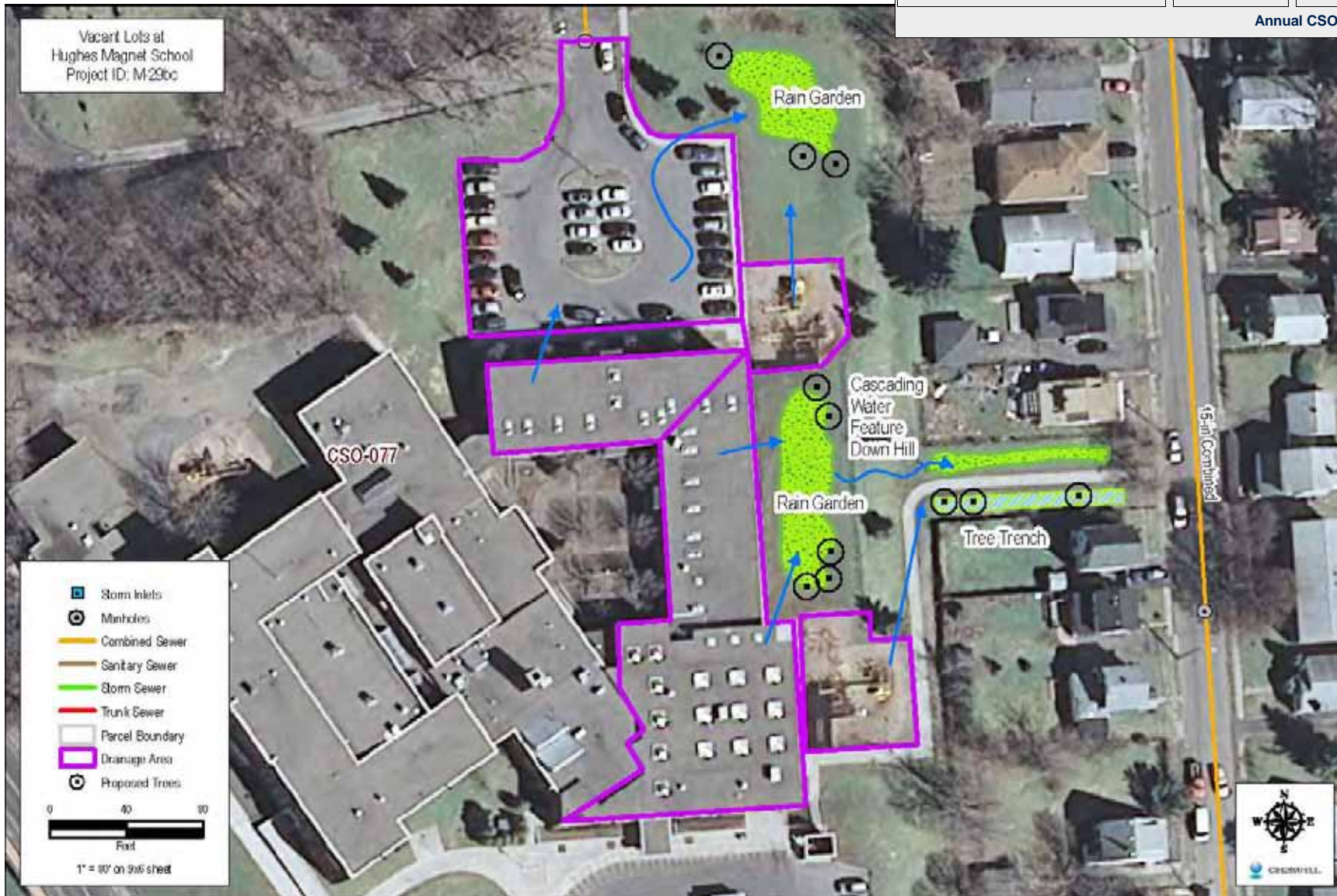


Project ID/Name: M-29c Vacant Lot: 220 Lorraine Ave

Proj Address: 220 Lorraine Ave

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Tree Trench Standard	4,000	1,000	65,000
Total	4,000	1,000	65,000
Annual CSO Reduction (gal)			46,150





Project ID/Name: M-30 Southwest Community Center

Proj Address: 401-45 South Ave & Clover St

Parcel Owner: City of Syracuse



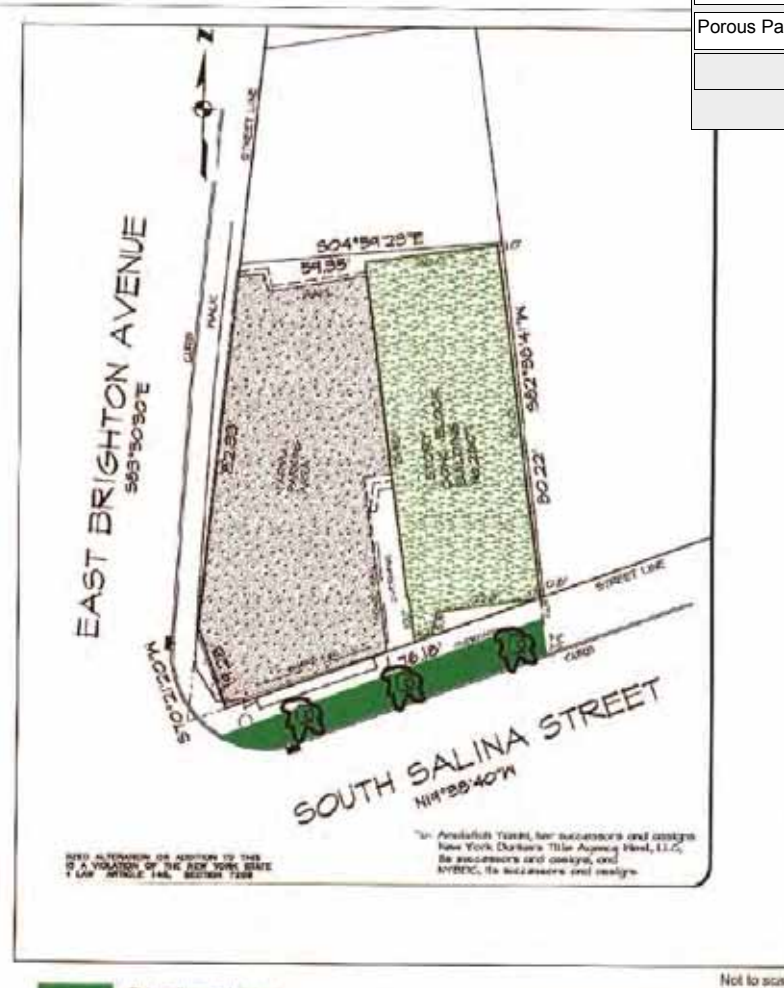


Project ID/Name: M-31 GIF#025 Salina Shoe Company Inc

Proj Address: 2809 S. Salina Street

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	2,000	24,000	42,000
Porous Pavement Sidewalk	1,000	1,000	10,000
Porous Pavement Parking Lot	3,000	3,000	57,000
Total	6,000	28,000	109,000
Annual CSO Reduction (gal)			77,390



- Sidewalk greening area
- Green roof
- Porous asphalt lot

PROJECT MAP
GIF APPLICATION - SALINA SHOES, 2809 S. SALINA ST., SYRACUSE, NY

DATE: 11/18/10
DRAWN BY: KET

FIGURE 1

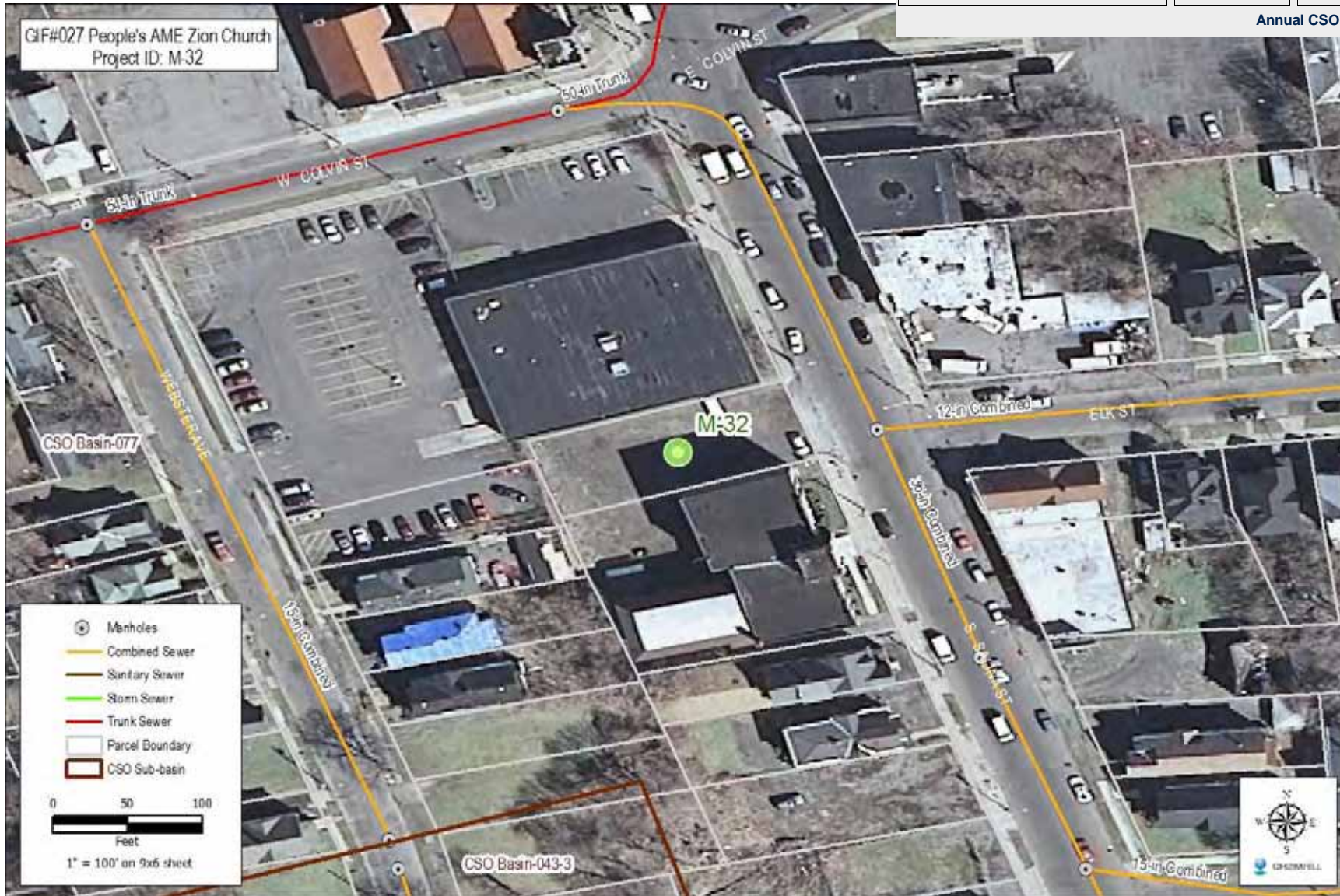


Project ID/Name: M-32 GIF#027 People's AME Zion Church

Proj Address: 2226-28 South Salina St.

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	8,000	8,000	132,000
Total	8,000	8,000	132,000
Annual CSO Reduction (gal)			93,720



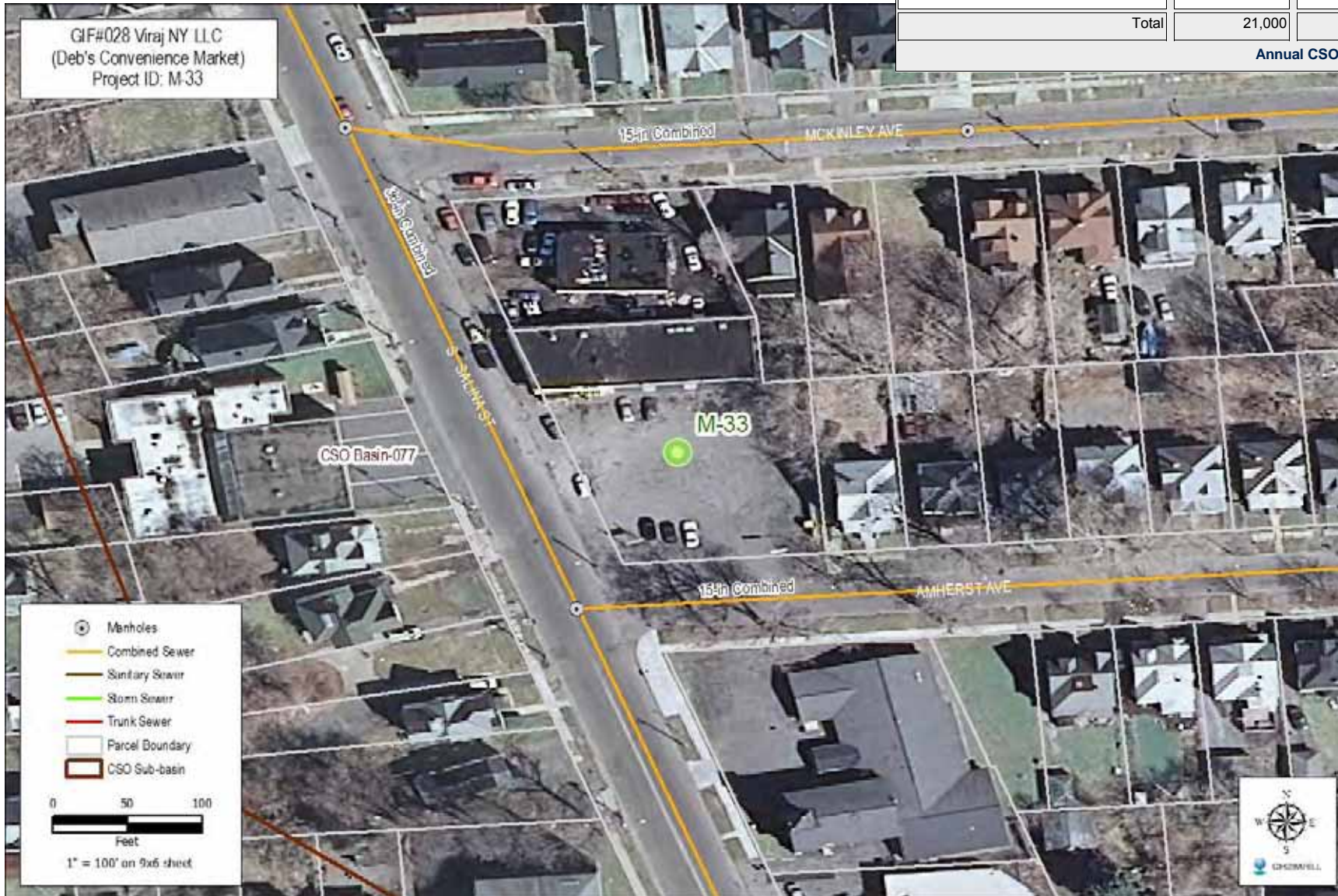


Project ID/Name: M-33 GIF#028 Viraj NY LLC (Deb's Convenience Market)

Proj Address: 2419 South Salina St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Infiltration Trench	18,000	18,000	317,000
Vegetated Infiltration Basin	3,000	3,000	53,000
Total	21,000	21,000	370,000
Annual CSO Reduction (gal)			262,700





Project ID/Name: M-34 GIF#029 Viraj Salinia Inc. (Factory Direct Furniture and Mattre

Proj Address: 2711-31 and 2703 South Salina St

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	35,000	2,000	616,000
Total	35,000	2,000	616,000
Annual CSO Reduction (gal)			437,360



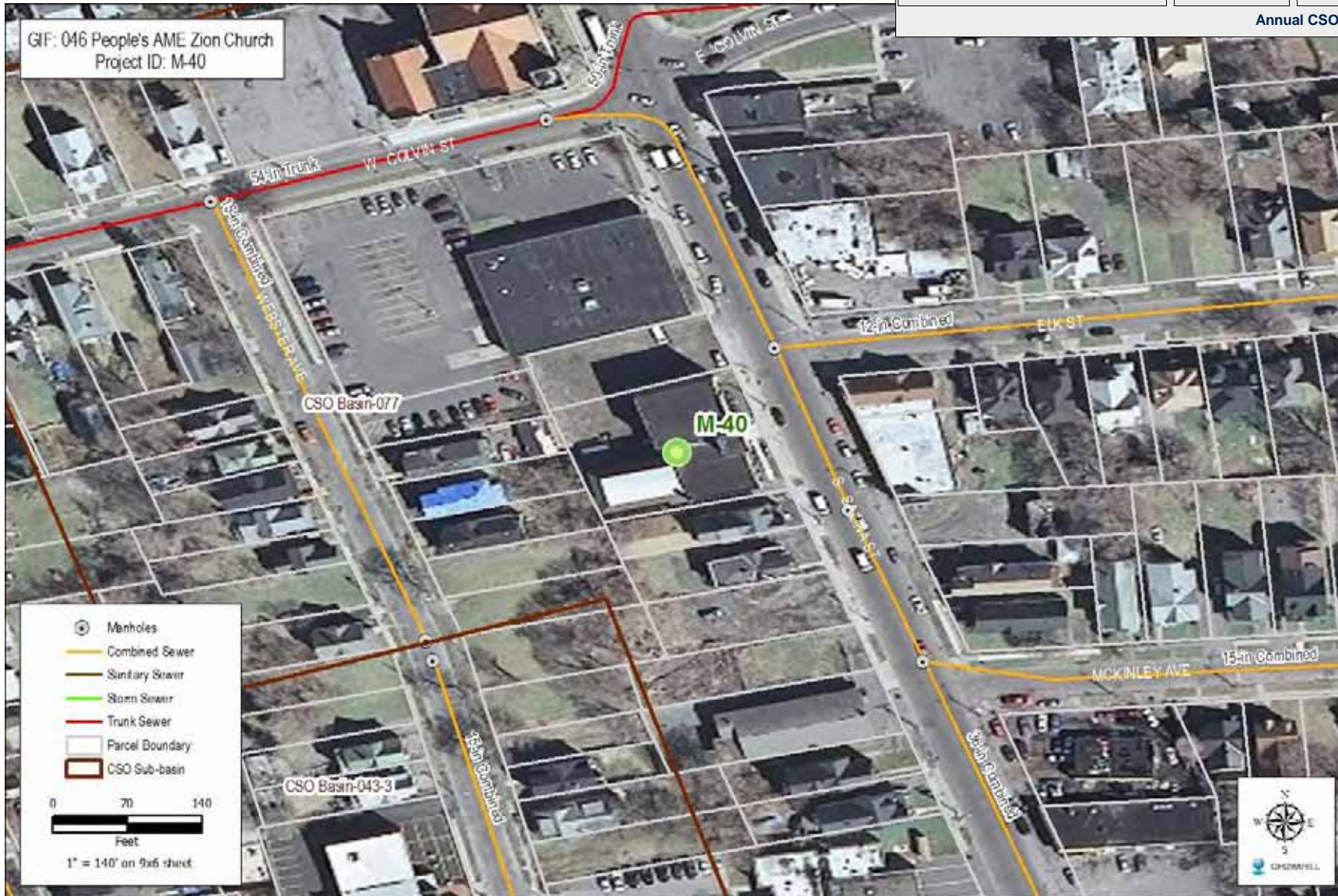


Project ID/Name: M-40 GIF#046 People's AME Zion Church

Proj Address: 2306 S. Salina

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	4,000	4,000	72,000
Total	4,000	4,000	72,000
Annual CSO Reduction (gal)			51,120



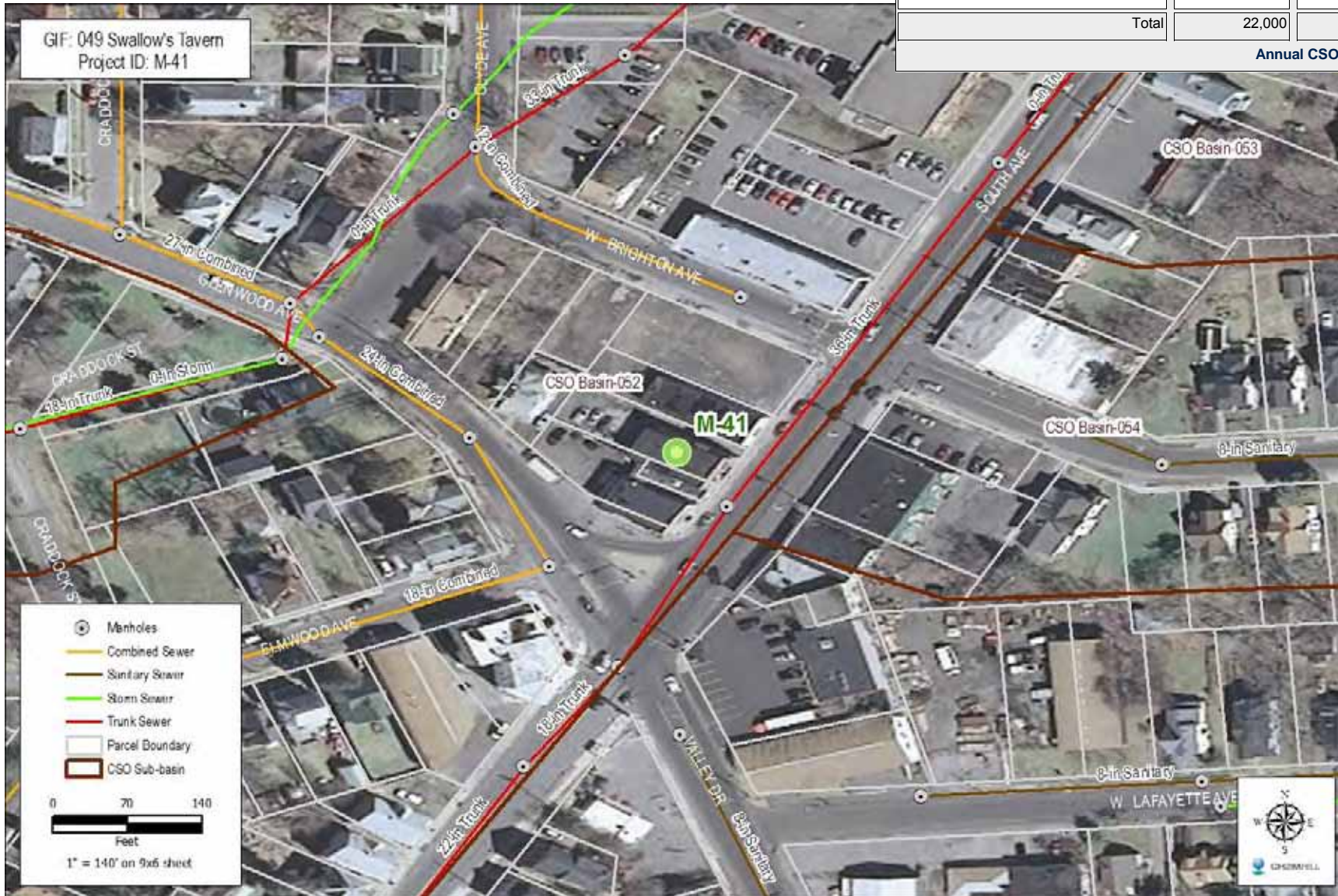


Project ID/Name: M-41 GIF#049 Swallow's Tavern

Proj Address:

Parcel Owner: Private

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	14,000	2,000	245,000
Porous Pavement Parking Lot	8,000	8,000	146,000
Total	22,000	10,000	391,000
Annual CSO Reduction (gal)			277,610

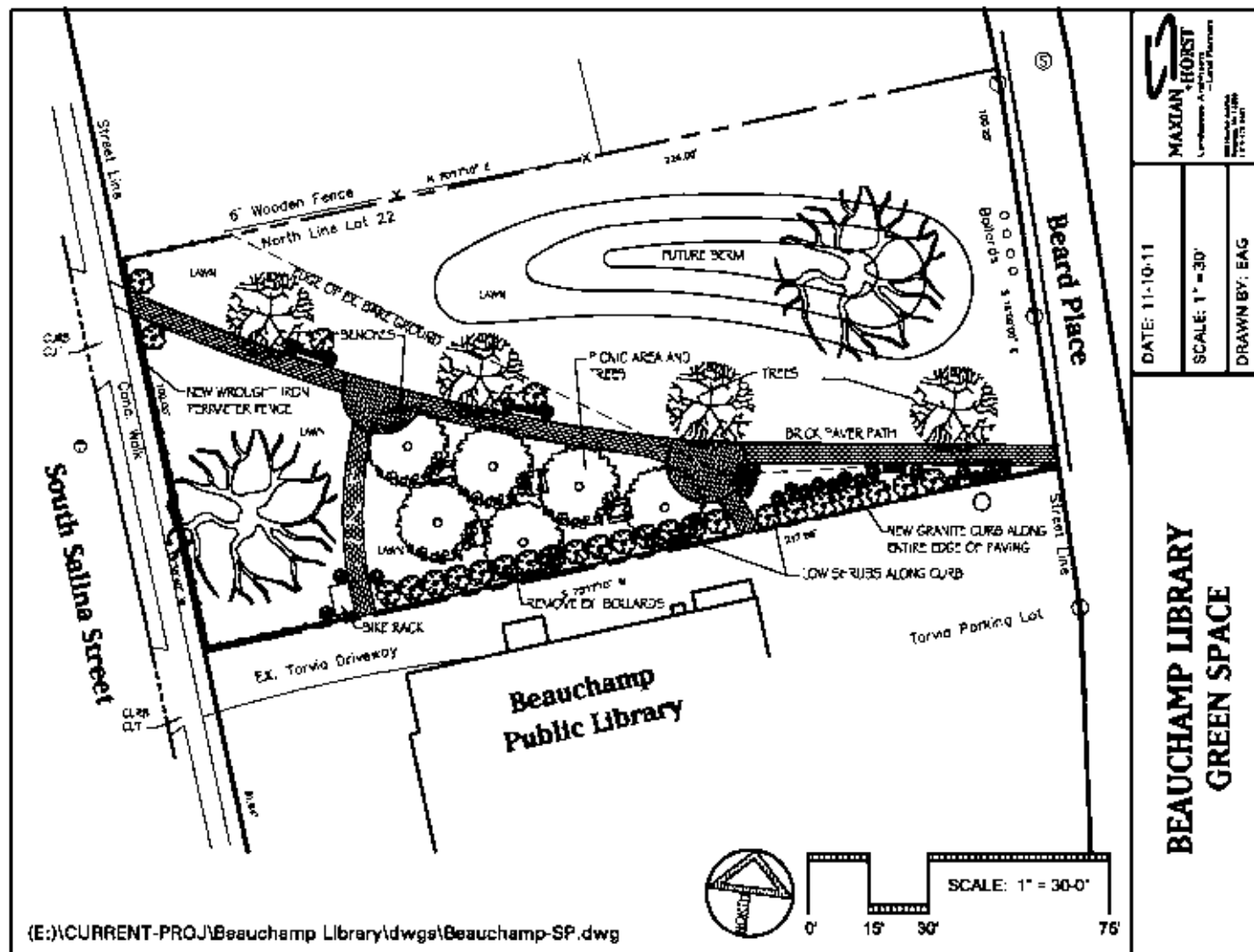




Project ID/Name: M-42 Greening Vacant Lot near Beauchamp Library

Proj Address: tbd

Parcel Owner: City of Syracuse





Project ID/Name: M-43 Green Park: Comfort Tyler Park

Proj Address: 1212-14 E Colvin St and Comstock Ave

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	12,000	4,000	211,000
Enhanced Street Trees	8,000	3,000	143,000
Bioretention	18,000	4,000	312,000
Infiltration Trench	11,000	2,000	194,000
Total	49,000	13,000	860,000
Annual CSO Reduction (gal)			610,600





Project ID/Name: M-45 Rain Garden at Barnabas Center

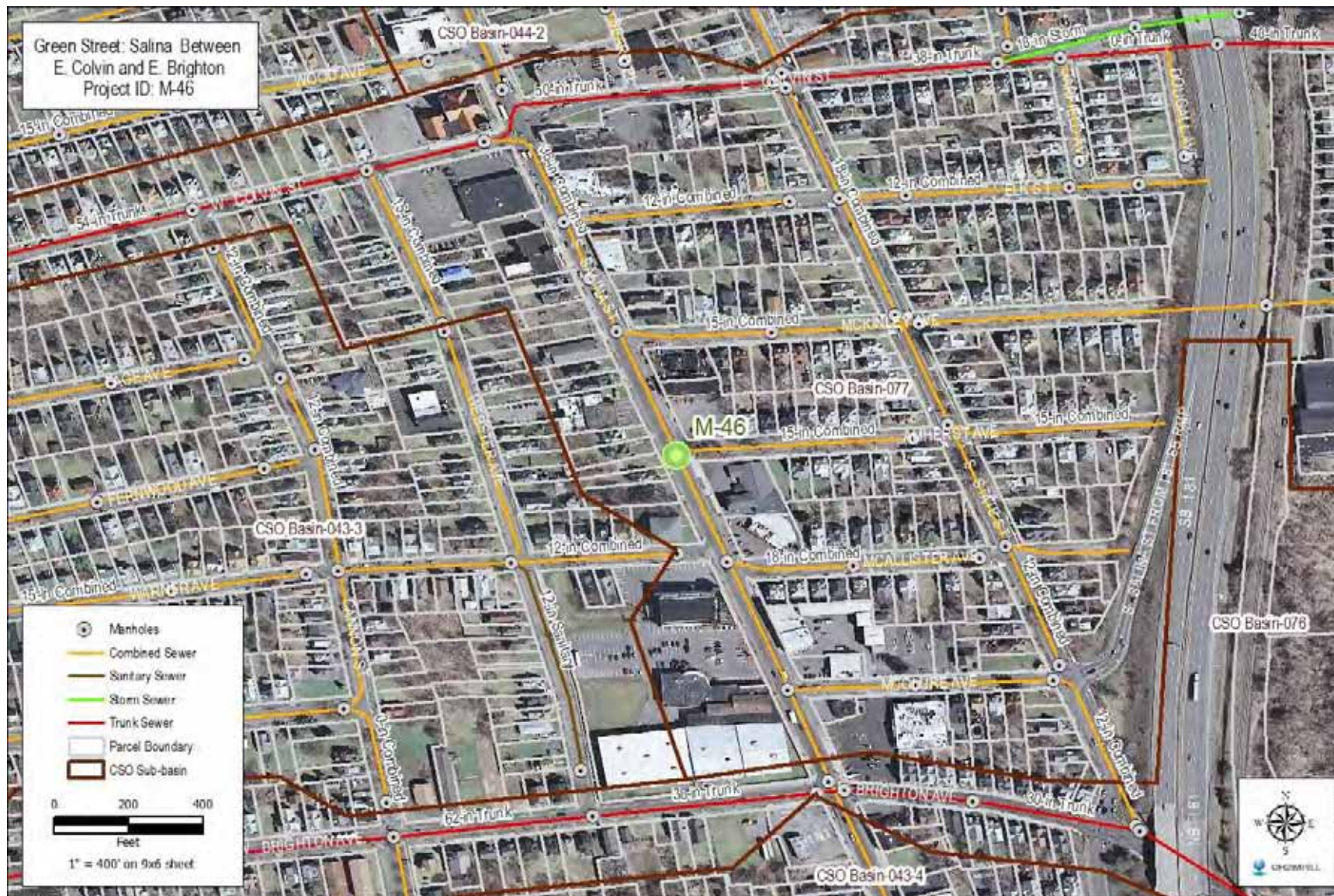
Proj Address: 1941 S Salina St

Parcel Owner: Private





Parcel Owner: City of Syracuse

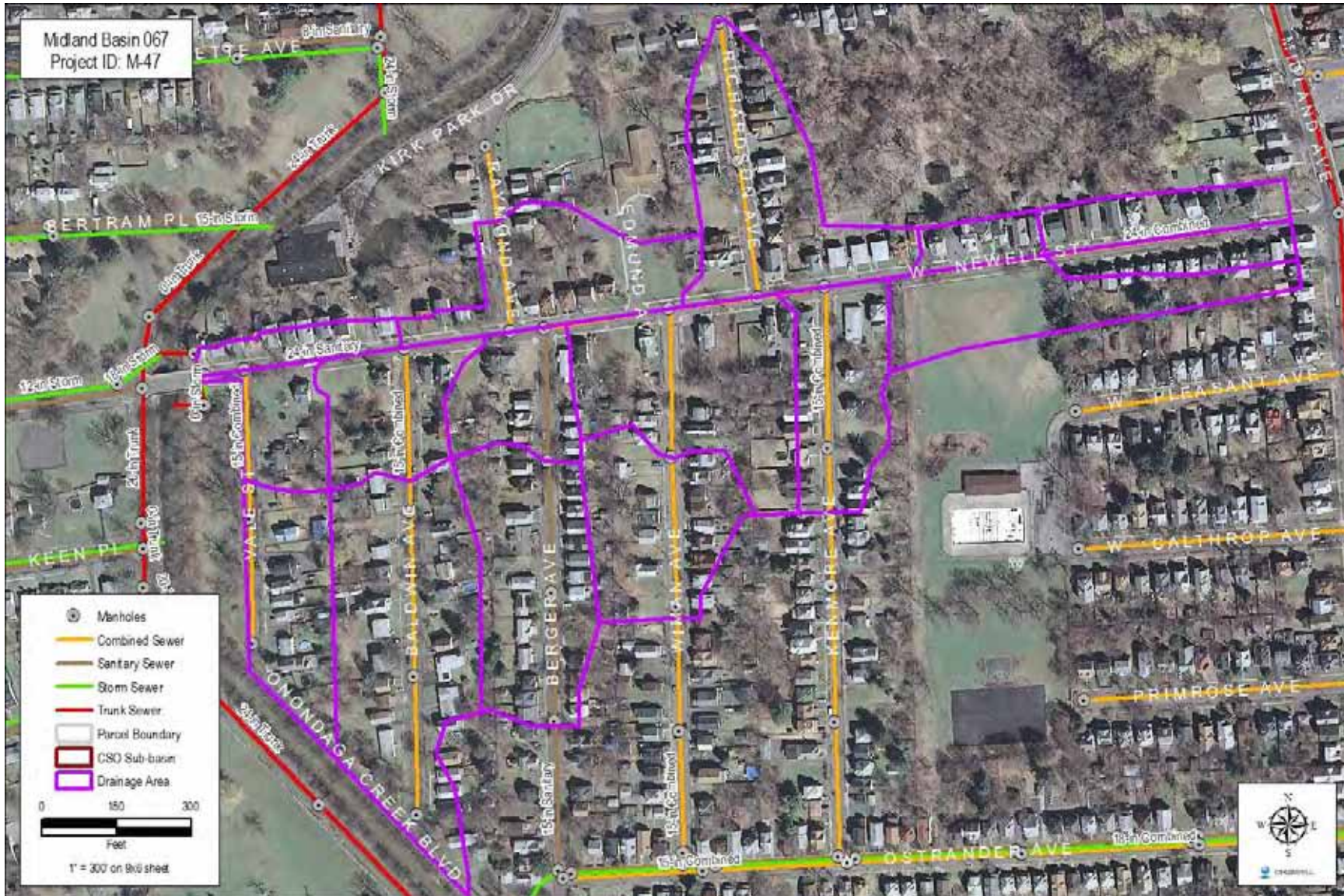




Project ID/Name: M-47 Neighborhood GI at Midland 067

Proj Address: Midland Basin 067

Parcel Owner: Public



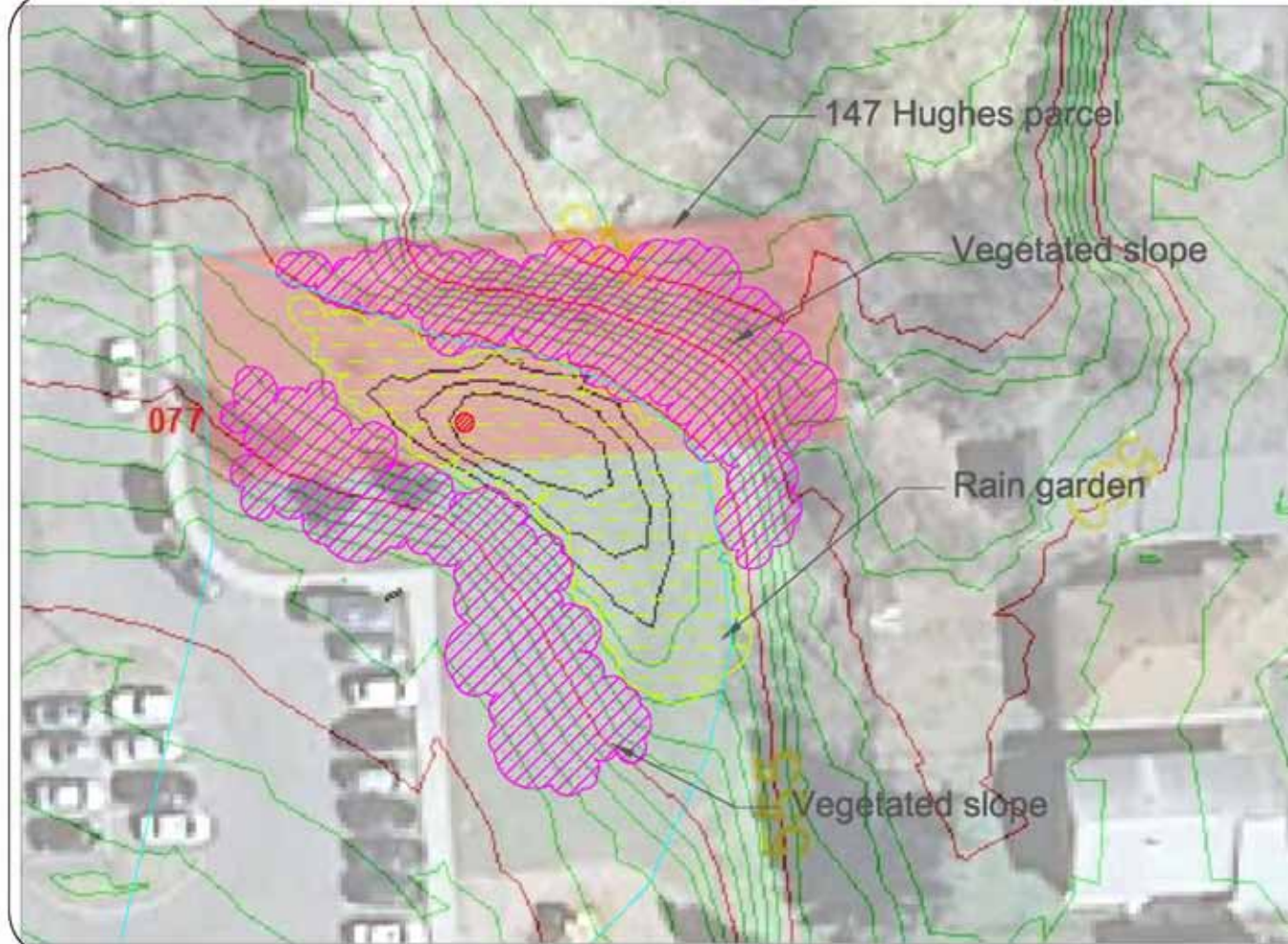


Project ID/Name: M-48 Vacant Lot: South Ave Rain Garden

Proj Address: 1705 and 1721-23 South Ave

Parcel Owner: City of Syracuse

147_Hughes_Conceptual_1130.dwg



General Notes

Concept
* Not for Construction

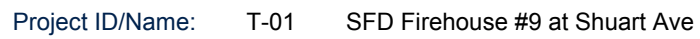
No.	Description/Revision	Date

**Atlantic States
Legal Foundation, Inc.**

Project Name and Address

Page	Sheet
	1 of 1

Scale: 1" = 40'



Parcel Owner: City of Syracuse



INSERT TAB FOR 2013 GI
PROJECTS HERE



Onondaga County Department of Water Environment Protection Green Infrastructure Project List - 2013-2018 Project List

Project Count	CH Role	Project Status	Project ID	Project Name	Project Address	Year	Parcel Owner	CSO Reduction (gal/yr)	Cost (1)	Cost/CSO Reduction
1	TRACK ONLY	3-DESIGN	C-144	Kennedy Square Redevelopment	E Fayette St and S Crouse	2013	Private			
2	CH2M ASSIST AND TRACK	3-DESIGN	C-29d	Connective Corridor Phase 2	E Genesee St, McBride St to S West St	2013	City of Syracuse	9,419,000		
3	CH2M ASSIST AND TRACK	3-DESIGN	C-29e	Connective Corridor Phase 3	S Salina St to Fayette St	2013	City of Syracuse	5,128,330		
4	CH2M LEAD	5-CONCEPT	C-03	Green Roof at John H. Mulroy Civic Center	421 Montgomery Street	2013	County of Onondaga	260,000	\$363,200	\$1.40
5	CH2M LEAD	5-CONCEPT	C-04	Green Roof at AXA Towers Parking Garage	235 Harrison Street	2013	City of Syracuse	534,000	\$745,500	\$1.40
6	CH2M LEAD	5-CONCEPT	C-10	School District Parking Lot at 701 S. Warren Street	701 S. Warren Street	2013	Syracuse City School District	724,000	\$447,669	\$0.62
7	CH2M LEAD	5-CONCEPT	C-13	Traffic Island Project #1	Intersection of W. Onondaga and West Streets	2013	City of Syracuse	238,000	\$78,000	\$0.33
8	TRACK ONLY	5-CONCEPT	C-131	Green Park: Water (Ormond) Park	1100 East Water Street	2013	City of Syracuse Parks Depart	310,000	\$214,840	\$0.69
9	CH2M LEAD	5-CONCEPT	C-134	Green Park: Union Park	300 Kirkpatrick St and Union Pl	2013	City of Syracuse Parks Depart			
10	CH2M LEAD	5-CONCEPT	C-135	Green Park: Roesler Park	201 New St and S State St	2013	City of Syracuse Parks Depart	359,000	\$203,233	\$0.57
11	CH2M LEAD	5-CONCEPT	C-16	Green School: Blodgett Elementary	312 Oswego Street	2013	Syracuse City School District	1,034,000	\$590,667	\$0.57
12	CH2M LEAD	5-CONCEPT	C-17	Residential Green Street at Massena Street	Massena Street from Grace Street to Kellogg Street	2013	City of Syracuse	104,000	\$38,688	\$0.37
13	CH2M LEAD	5-CONCEPT	C-18	Residential Green Street at Kellogg Street	Kellogg Street from Massena Street to Oswego Street	2013	City of Syracuse	388,000	\$80,500	\$0.21
14	CH2M LEAD	5-CONCEPT	C-35	Green Roof at the County Sheriff's Office HQ	401 S. State Street	2013	County of Onondaga	175,000	\$311,900	\$1.78
15	CH2M LEAD	5-CONCEPT	C-36a	Green Roof at the City / County Criminal Court House	505 S. State Street	2013	City of Syracuse	263,000	\$467,900	\$1.78
16	CH2M LEAD	5-CONCEPT	C-37	Green Roof at the County Steam Station	521 S. State Street	2013	County of Onondaga	43,000	\$92,300	\$2.17
17	CH2M LEAD	5-CONCEPT	C-49	Upstate Near West Side Green Streets #1	Wyoming St. from Otisco Street to Marcellus Street	2013	City of Syracuse			
18	CH2M LEAD	5-CONCEPT	H-01	Residential Green Street at Emerson Avenue	Emerson Avenue from Schuyler Street to Ulster Street	2013	City of Syracuse	300,000	\$58,300	\$0.19
19	CH2M LEAD	5-CONCEPT	M-08	Residential Green Street at Euclid Ave	Euclid Avenue from Sumner Ave. to Ackerman Ave.	2013	City of Syracuse	418,000	\$91,511	\$0.22
20	CH2M LEAD	5-CONCEPT	M-09	Residential Green Street at Baldwin Ave	Baldwin Avenue from Newell Street to Kirk Park Drive	2013	City of Syracuse	521,000	\$102,297	\$0.20
21	CH2M LEAD	5-CONCEPT	M-11a	Green Roof at Firehouse Station #8	2412 S. Salina St	2013	City of Syracuse	43,000	\$63,480	\$1.47
22	CH2M LEAD	6-IDEA	C-40	Commercial Green Streets: Erie Boulevard & Water Street Open Space/Median in Clinton Basin	Between Erie Blvd. & Water St. From S. Beech St. to University Ave.	2013	City of Syracuse			
23	CH2M LEAD	6-IDEA	C-44	Green Roof at Center for Forensic Sciences	100 Elizabeth Blackwell St.	2013	New York State			
24	TRACK ONLY	6-IDEA	E-37	Winkleman Site	101 Greenway Ave	2013	Private			
25	TRACK ONLY	6-IDEA	E-38	Sims Matchplate Site	2176 Erie Blvd E & Beattie St	2013	City of Syracuse			
26	CH2M LEAD	6-IDEA	H-15	Constructed Wetland at CSO 063	Basin 063	2013	County of Onondaga			
27	CH2M LEAD	6-IDEA	H-18	Wetland Treatment for CSO 078	Basin 078	2013	County of Onondaga			
28	CH2M LEAD	6-IDEA	H-21	City School: Frazer School Green Roof	741 Park Ave & Wall St	2013	City of Syracuse			
29	TRACK ONLY	6-IDEA	H-40	Tree Plantings at Woodland Reservoir	S Geddes and Stolp Ave	2013	Various			
30	TRACK ONLY	6-IDEA	M-27	Brown Manufacturing Site	101 Chester St & Bellvue Ave	2013	City of Syracuse			
31	TRACK ONLY	6-IDEA	M-28	South Salina SIDA Properties	1000 Block of S Salina St	2013	SIDA			

1) Note: Gray highlighted cells indicate as-constructed cost
Unhighlighted cells indicate costs based on conceptual or design-phase cost estimates;

Total

20,261,330

\$3,949,985

Average

0.87



Onondaga County Dept. of
Water Environment Protection

Candidate 2013-2018
Green Infrastructure Projects

● 2013 GI Project Location (ID - ###)

CSO Sewersheds

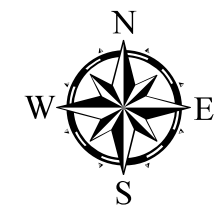
■ Clinton/Lower MIS

■ Harbor Brook

■ Hiawatha RTF

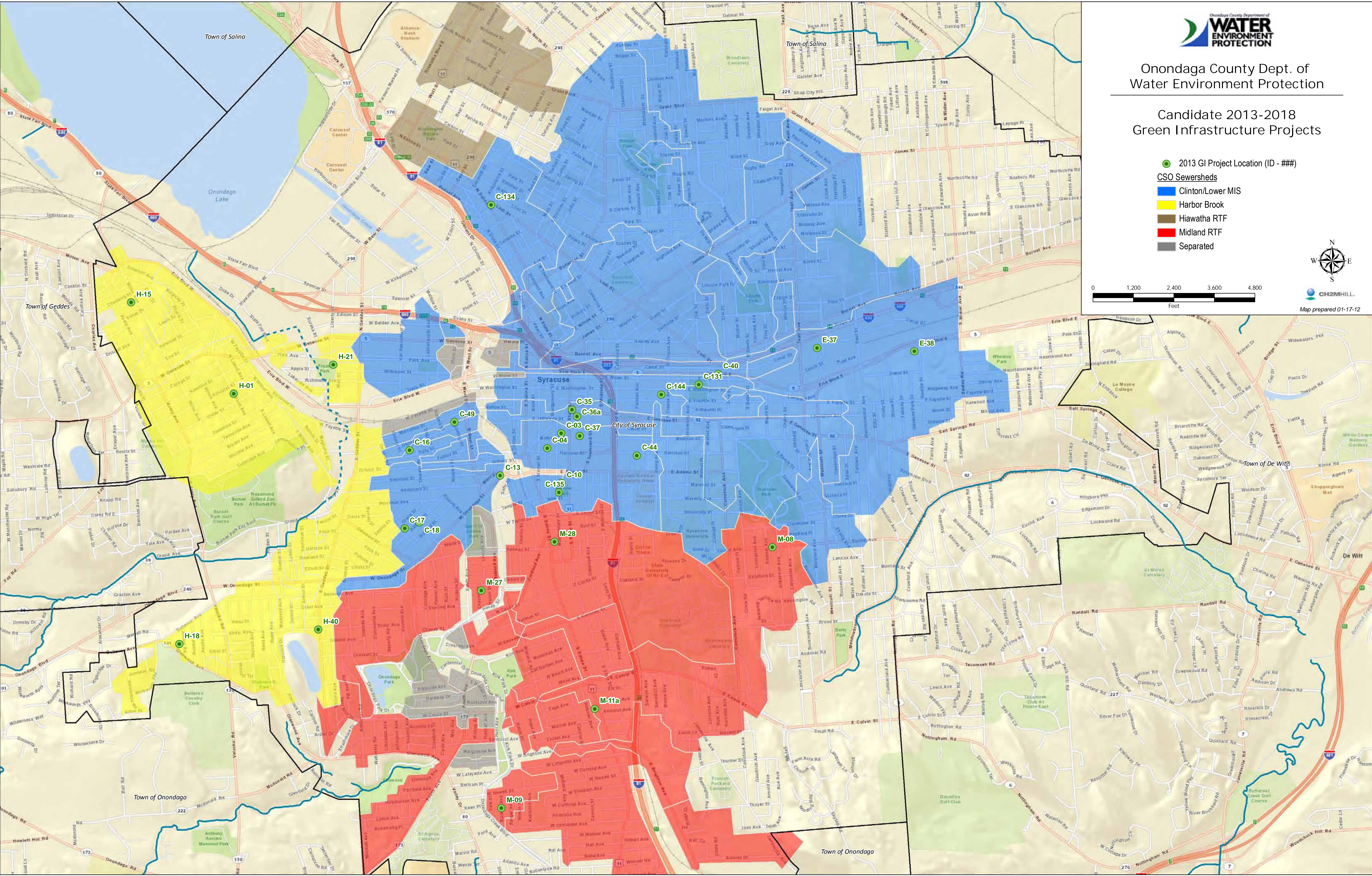
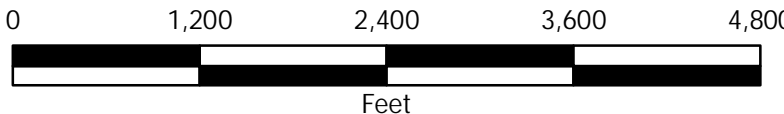
■ Midland RTF

■ Separated



CH2MHILL

Map prepared 01-17-12





Project ID/Name: C-03 Green Roof at John H. Mulroy Civic Center

Proj Address: 421 Montgomery Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	21,000	21,000	366,000
Total	21,000	21,000	366,000
Annual CSO Reduction (gal)			259,860





Project ID/Name: C-04 Green Roof at AXA Towers Parking Garage

Proj Address: 235 Harrison Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	43,000	43,000	751,000
Total	43,000	43,000	751,000
Annual CSO Reduction (gal)			533,210





Project ID/Name: C-10 School District Parking Lot at 701 S. Warren Street

Proj Address: 701 S. Warren Street

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	26,000	4,000	460,000
Porous Pavement Parking Lot	29,000	29,000	560,000
Total	55,000	33,000	1,020,000
Annual CSO Reduction (gal)			724,200



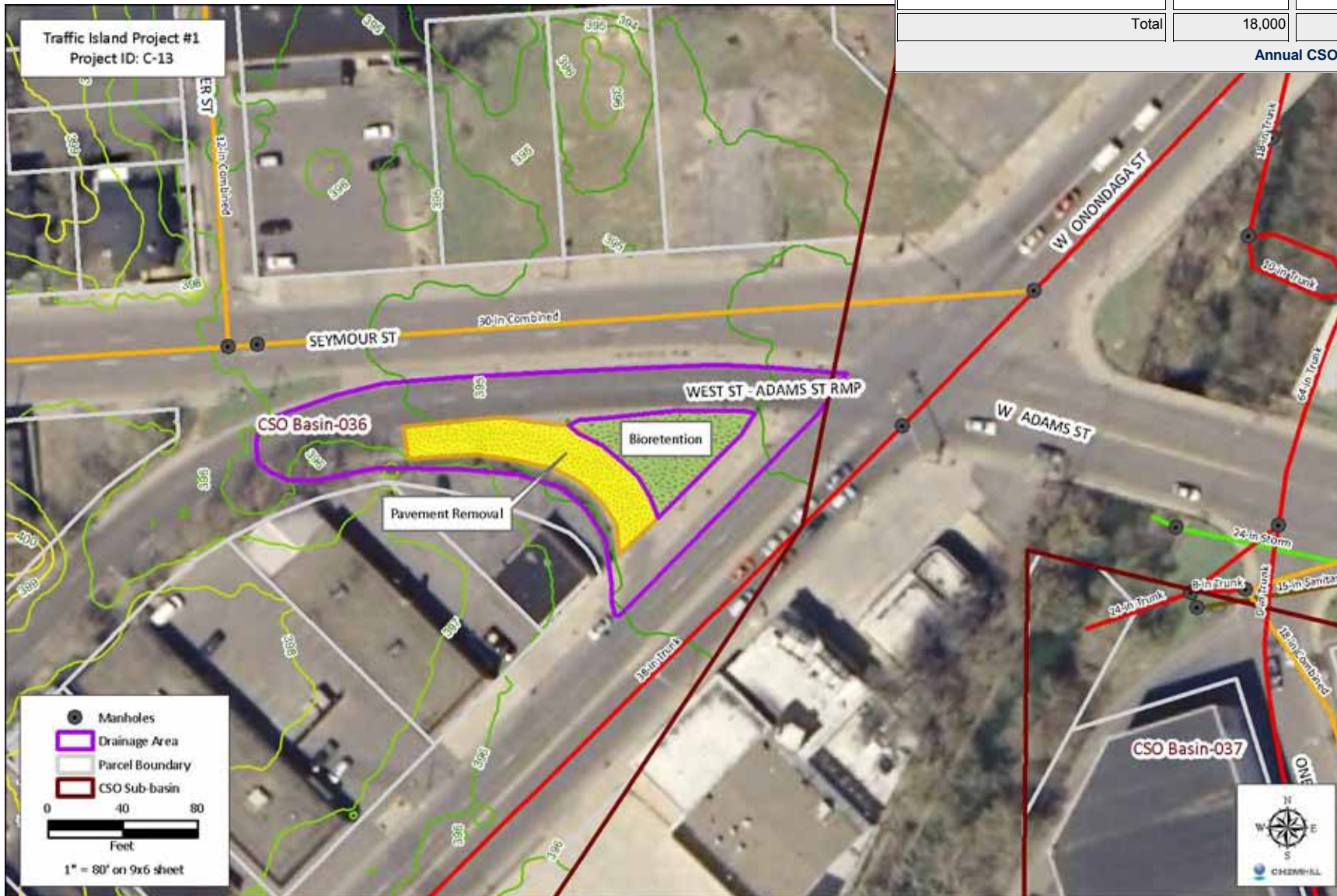


Project ID/Name: C-13 Traffic Island Project #1

Proj Address: Intersection of W. Onondaga and West Streets

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	16,000	2,000	291,000
Pavement Removal	2,000	2,000	44,000
Total	18,000	4,000	335,000
Annual CSO Reduction (gal)			237,850



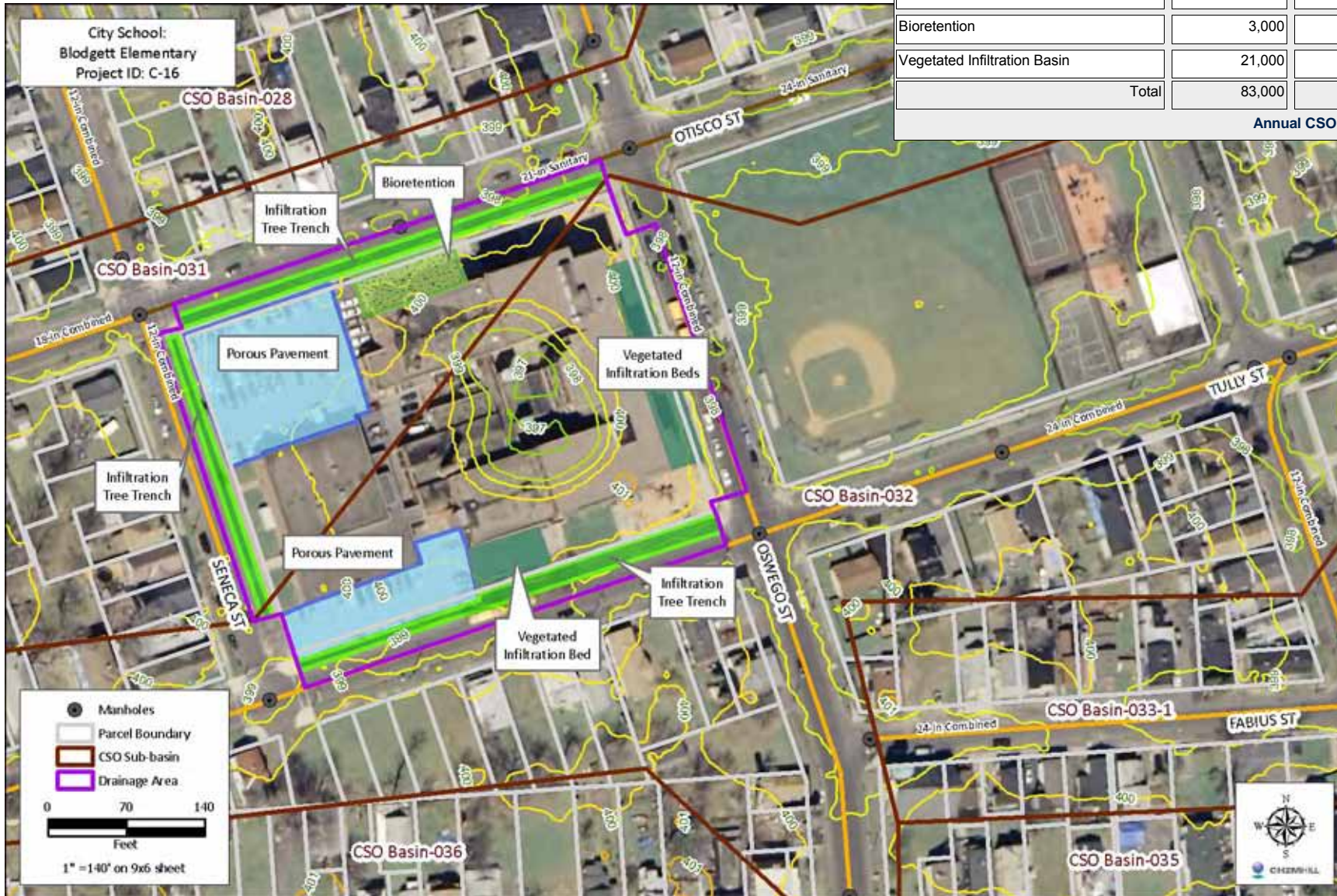


Project ID/Name: C-16 Green School: Blodgett Elementary

Proj Address: 312 Oswego Street

Parcel Owner: Syracuse City School District

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	21,000	10,000	370,000
Porous Pavement Parking Lot	38,000	29,000	665,000
Bioretention	3,000	1,000	59,000
Vegetated Infiltration Basin	21,000	9,000	362,000
Total	83,000	49,000	1,456,000
Annual CSO Reduction (gal)			1,033,760



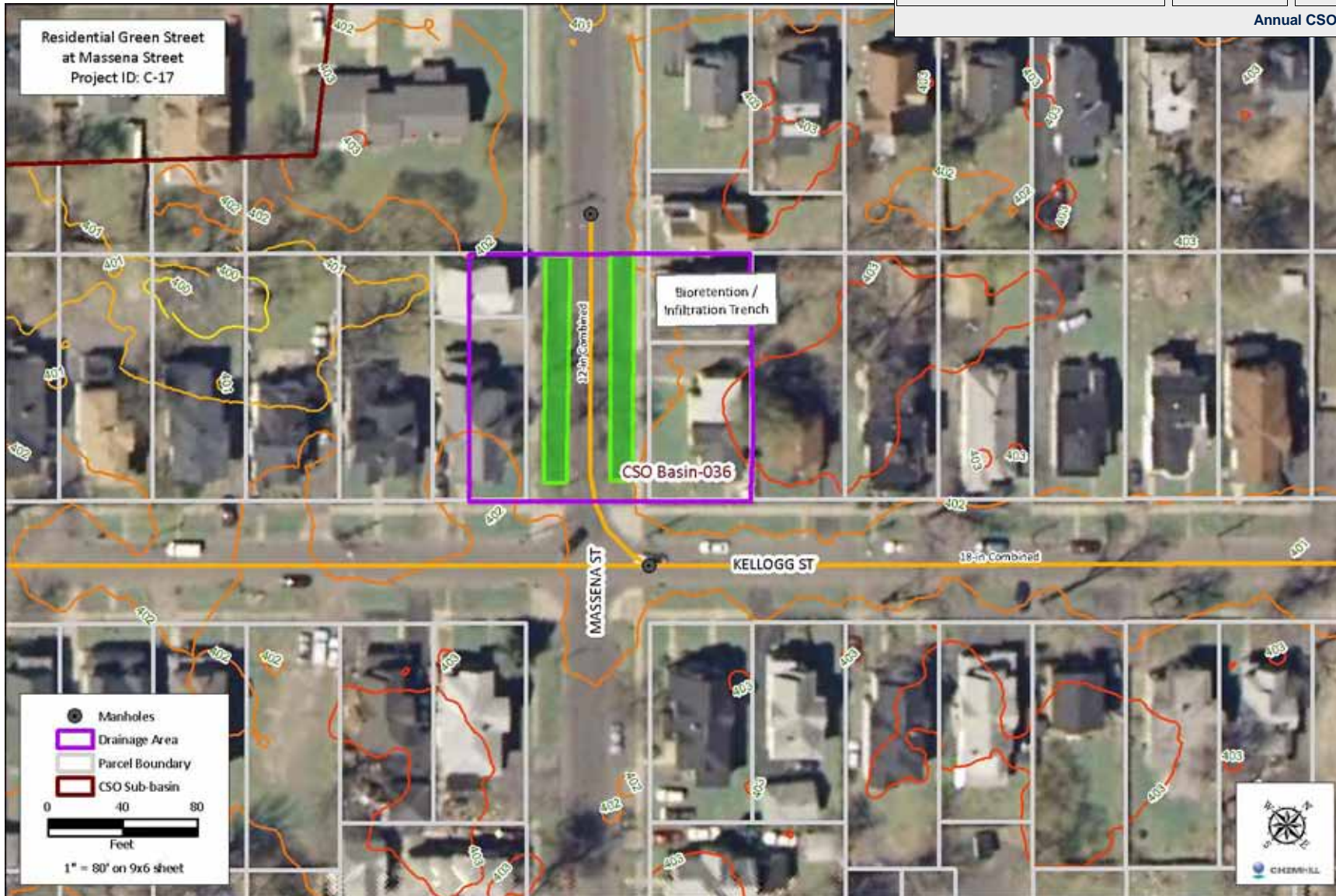


Project ID/Name: C-17 Residential Green Street at Massena Street

Proj Address: Massena Street from Grace Street to Kellogg Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	8,000	2,000	146,000
Total	8,000	2,000	146,000
Annual CSO Reduction (gal)			103,660





Project ID/Name: C-18 Residential Green Street at Kellogg Street

Proj Address: Kellogg Street from Massena Street to Oswego Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	31,000	6,000	546,000
Total	31,000	6,000	546,000
Annual CSO Reduction (gal)			387,660





Project ID/Name: C-35 Green Roof at the County Sheriff's Office HQ

Proj Address: 401 S. State Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	14,000	14,000	247,000
Total	14,000	14,000	247,000
Annual CSO Reduction (gal)			175,370



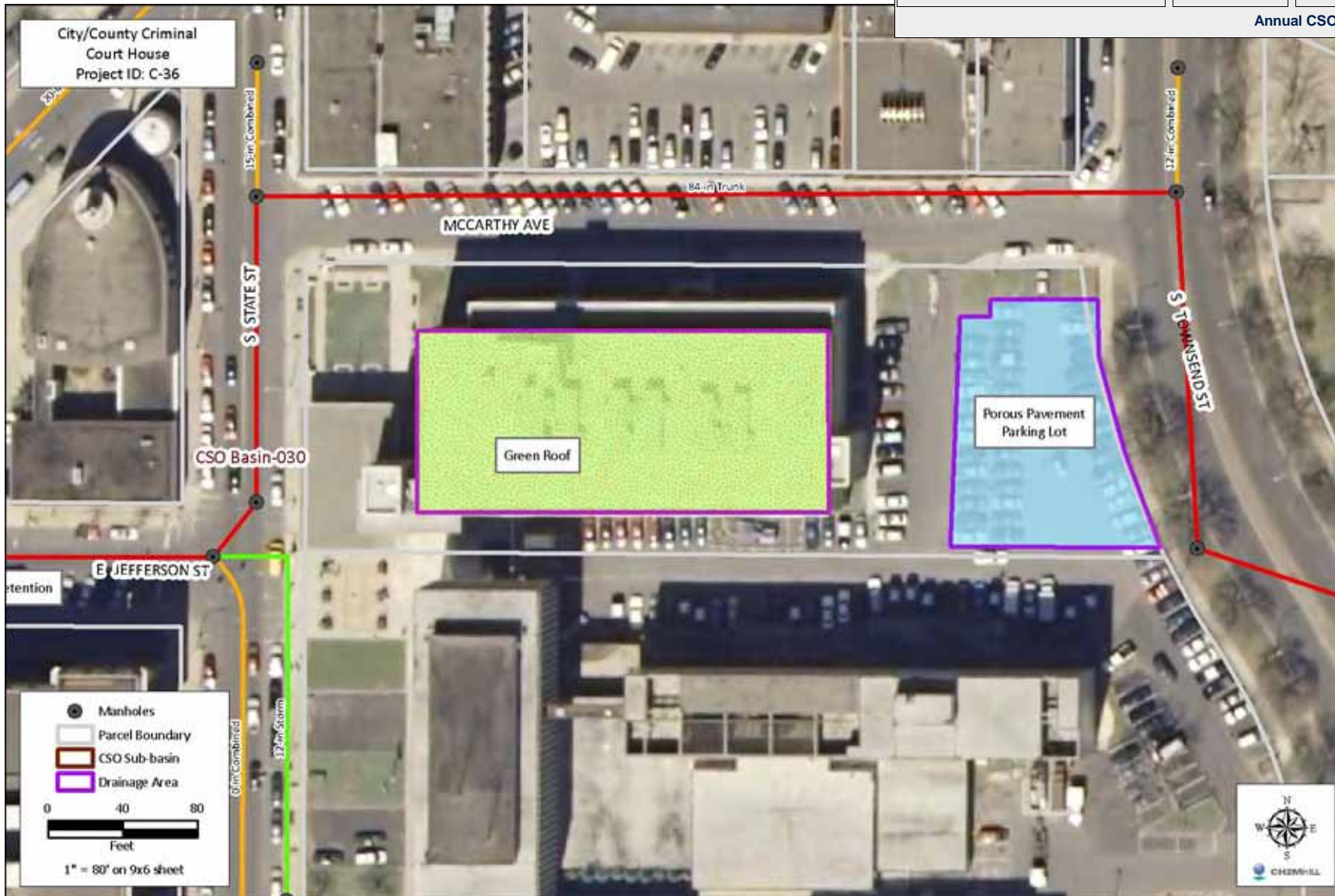


Project ID/Name: C-36a Green Roof at the City / County Criminal Court House

Proj Address: 505 S. State Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	21,000	21,000	370,000
Total	21,000	21,000	370,000
Annual CSO Reduction (gal)			262,700





Project ID/Name: C-37 Green Roof at the County Steam Station

Proj Address: 521 S. State Street

Parcel Owner: County of Onondaga

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	3,000	3,000	60,000
Total	3,000	3,000	60,000
Annual CSO Reduction (gal)			42,600

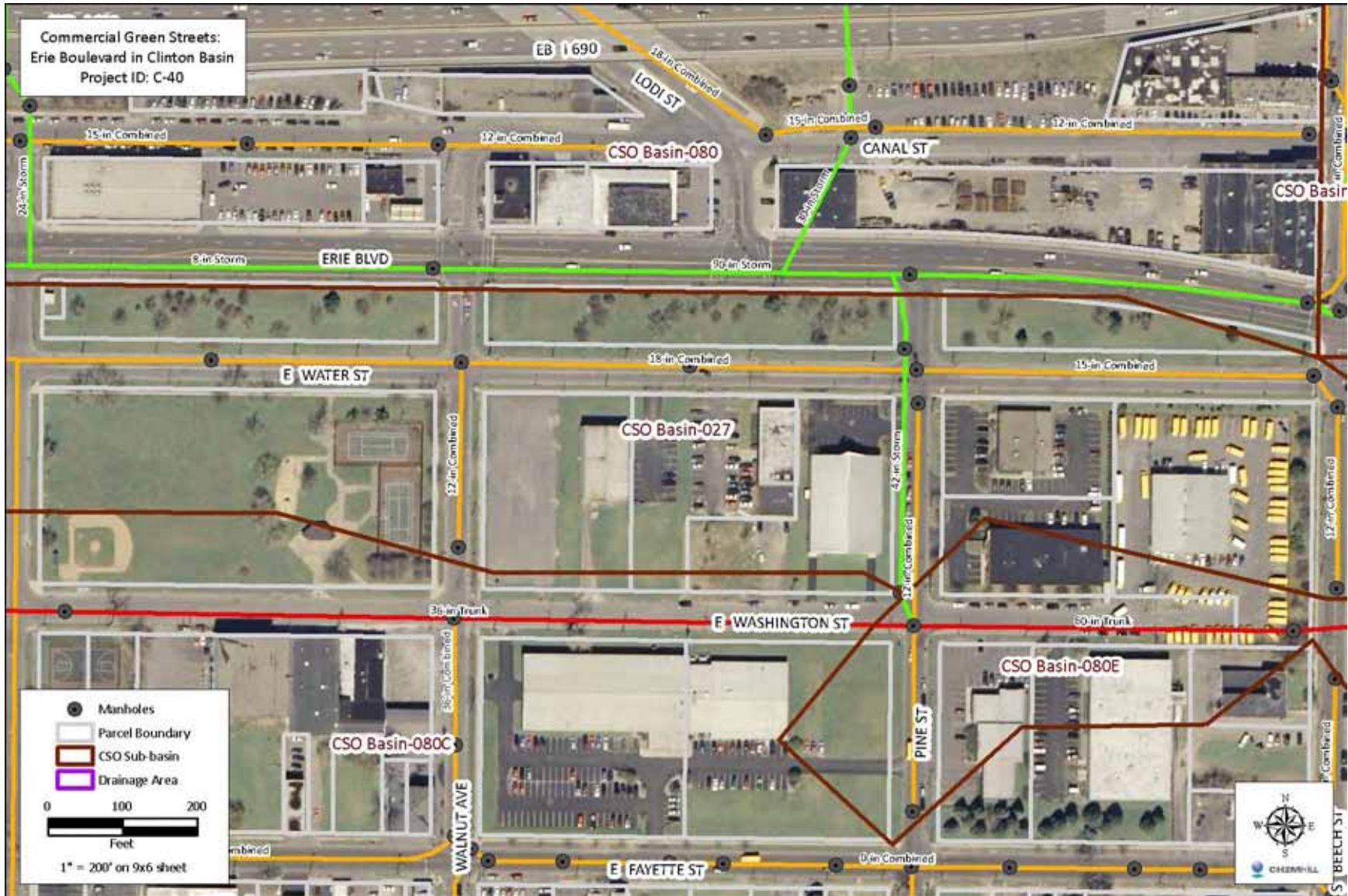




Project ID/Name: C-40 Commercial Green Streets: Erie Boulevard & Water Street
Open Space/Median in Clinton Basin

Proj Address: Between Erie Blvd. & Water St. From S. Beech St. to
University Ave.

Parcel Owner: City of Syracuse

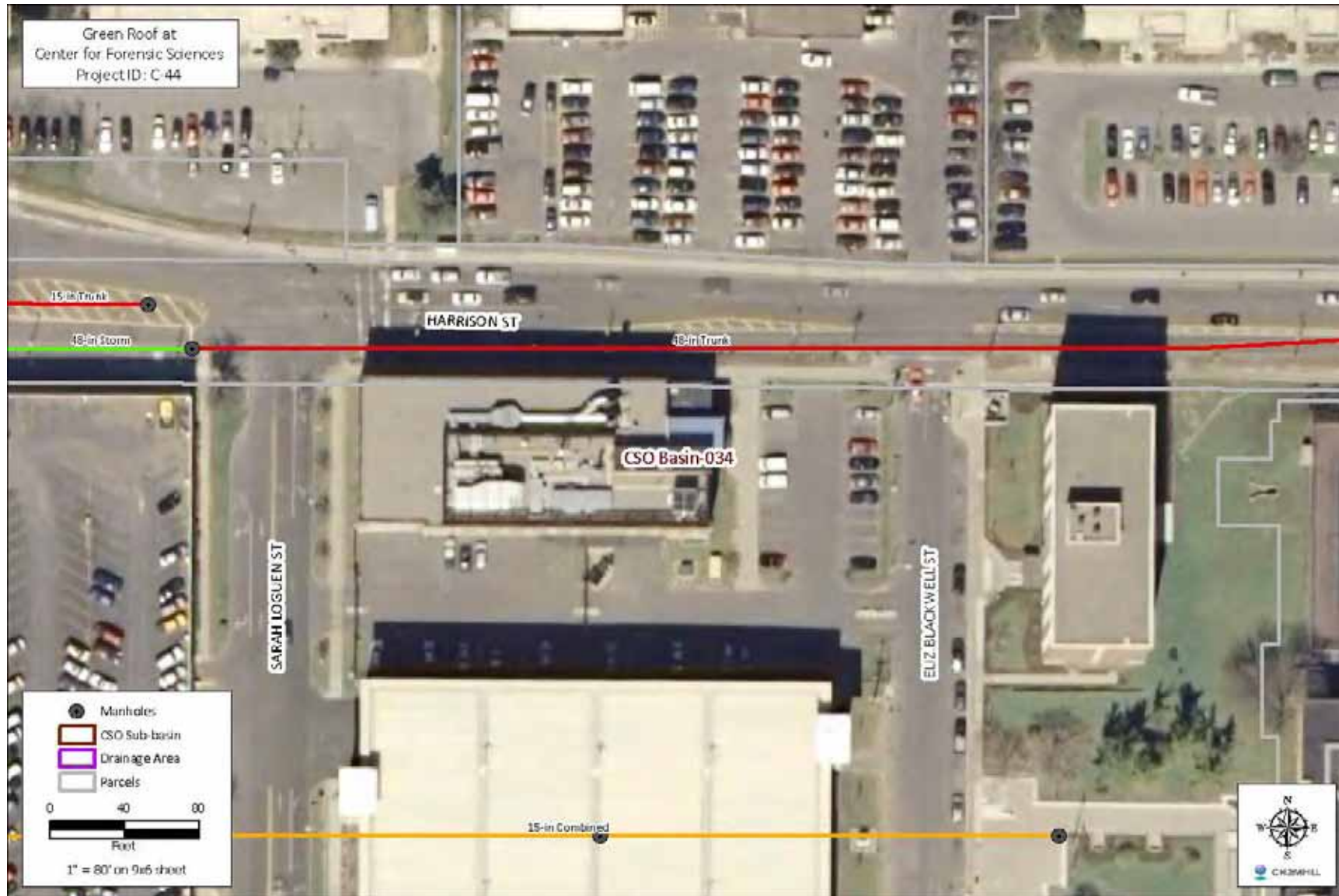




Project ID/Name: C-44 Green Roof at Center for Forensic Sciences

Proj Address: 100 Elizabeth Blackwell St.

Parcel Owner: New York State

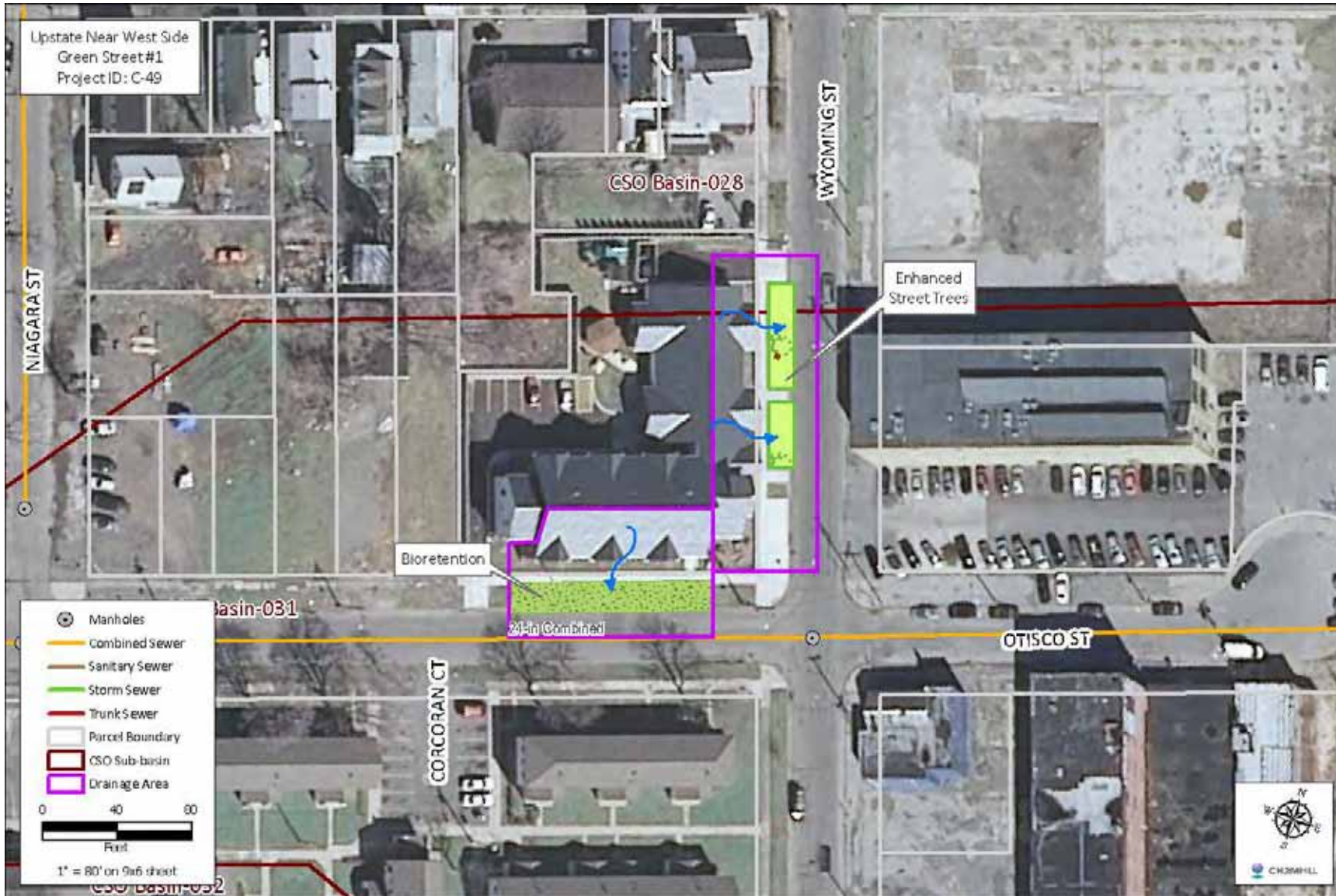




Project ID/Name: C-49 Upstate Near West Side Green Streets #1

Proj Address: Wyoming St. from Otisco Street to Marcellus Street

Parcel Owner: City of Syracuse



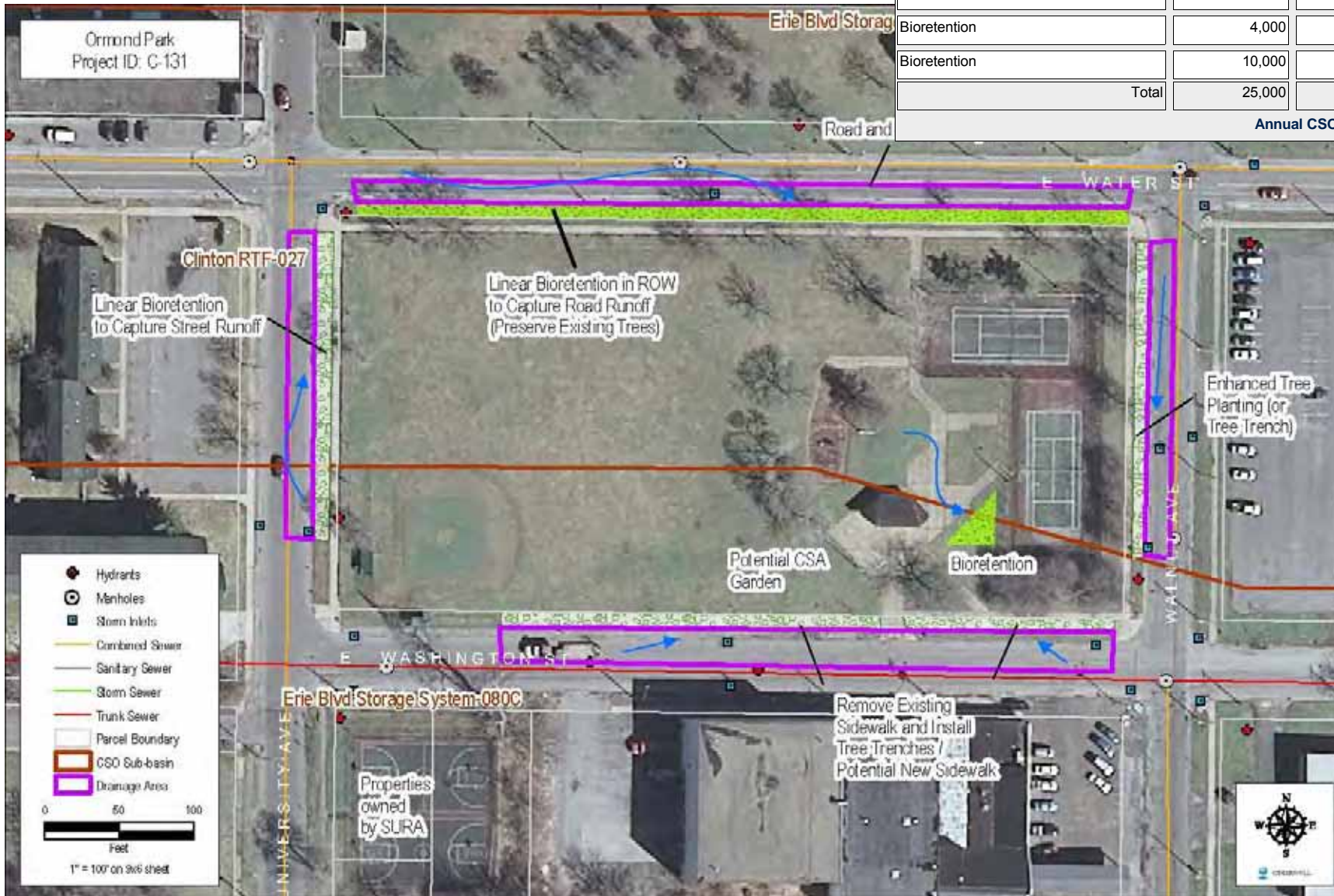


Project ID/Name: C-131 Green Park: Water (Ormond) Park

Proj Address: 1100 East Water Street

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	4,000	2,000	64,000
Bioretention	7,000	5,000	130,000
Bioretention	4,000	2,000	62,000
Bioretention	10,000	4,000	180,000
Total	25,000	13,000	436,000
Annual CSO Reduction (gal)			309,560





Project ID/Name: C-134 Green Park: Union Park

Proj Address: 300 Kirkpatrick St and Union Pl

Parcel Owner: City of Syracuse Parks Department



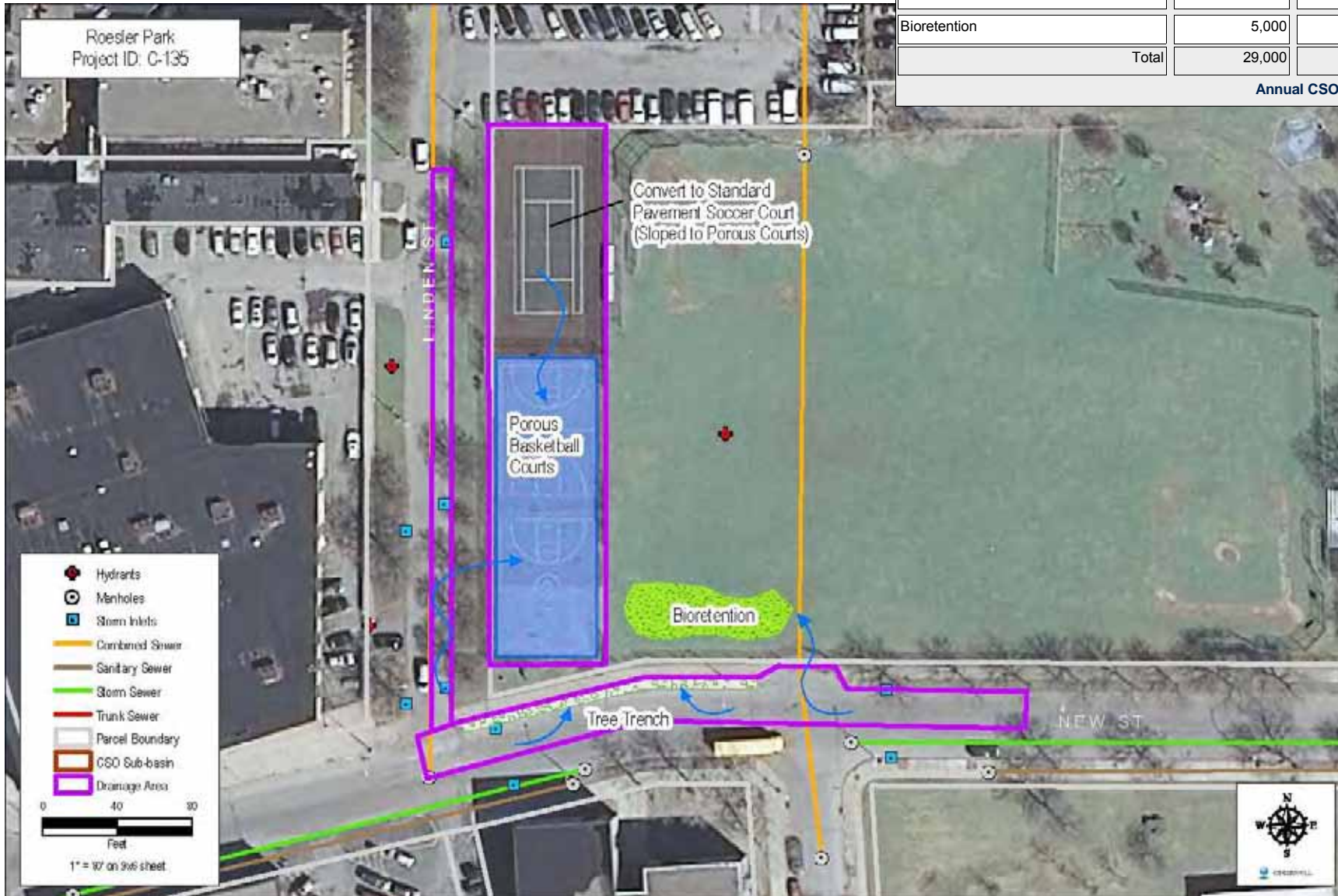


Project ID/Name: C-135 Green Park: Roesler Park

Proj Address: 201 New St and S State St

Parcel Owner: City of Syracuse Parks Department

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Court	21,000	9,000	371,000
Tree Trench Standard	3,000	1,000	46,000
Bioretention	5,000	2,000	88,000
Total	29,000	12,000	505,000
Annual CSO Reduction (gal)			358,550



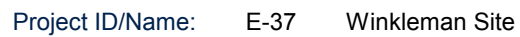


Project ID/Name: C-144 Kennedy Square Redevelopment

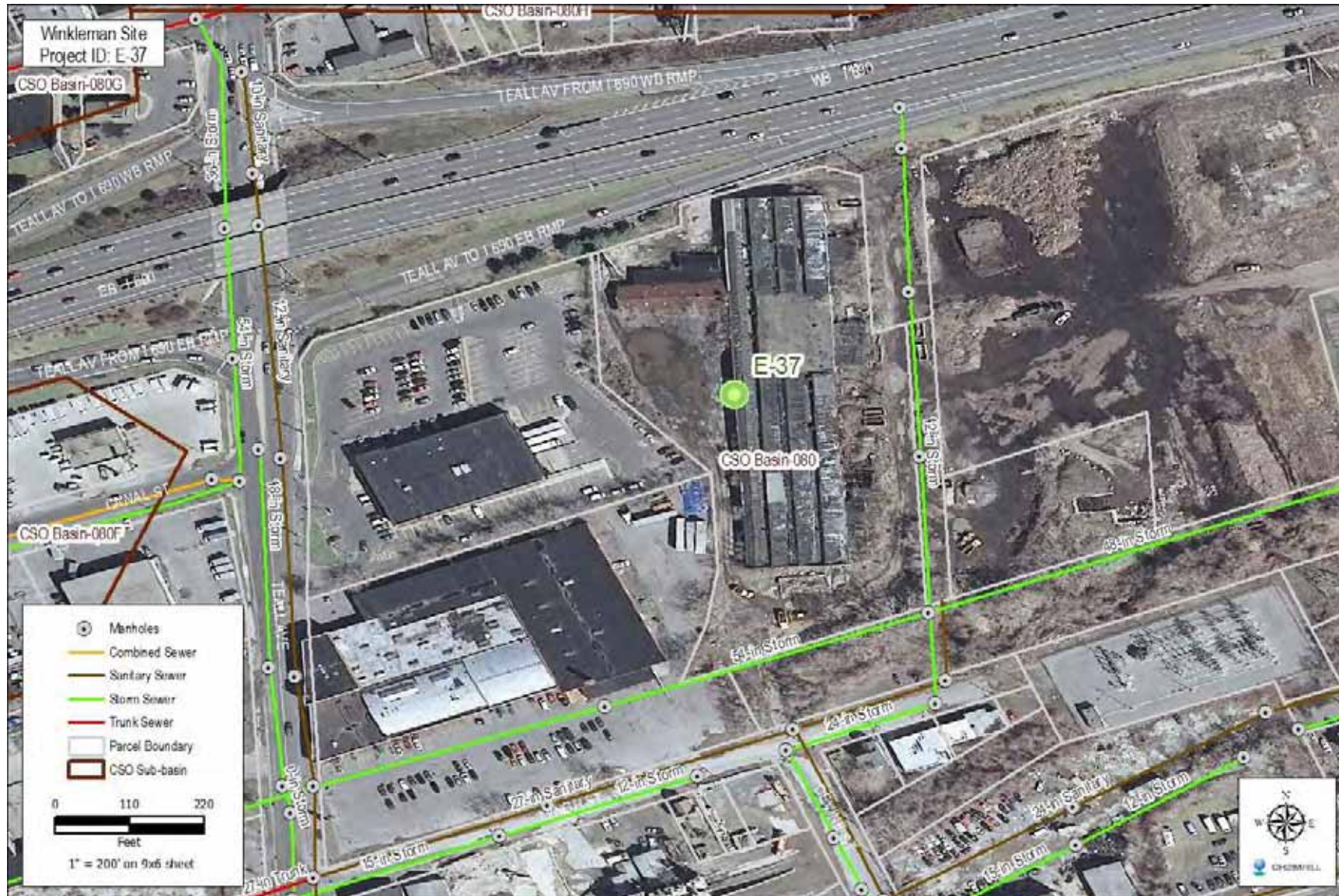
Proj Address: E Fayette St and S Crouse

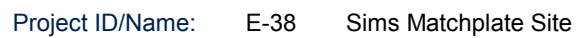
Parcel Owner: Private





Parcel Owner: Private





Parcel Owner: City of Syracuse



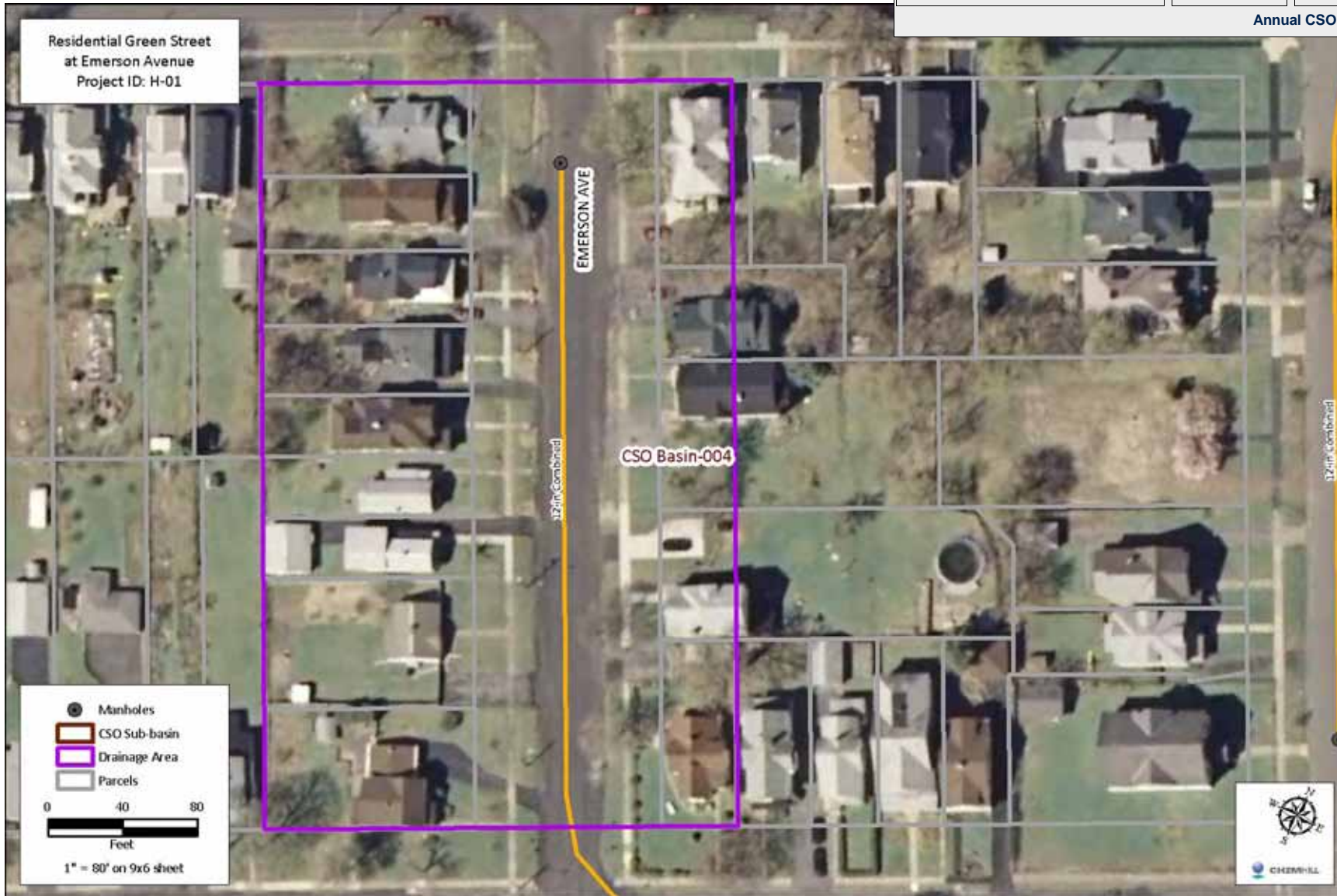


Project ID/Name: H-01 Residential Green Street at Emerson Avenue

Proj Address: Emerson Avenue from Schuyler Street to Ulster Street

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Bioretention	24,000	5,000	423,000
Total	24,000	5,000	423,000
Annual CSO Reduction (gal)			300,330



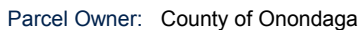


Project ID/Name: H-15 Constructed Wetland at CSO 063

Proj Address: Basin 063

Parcel Owner: County of Onondaga





Parcel Owner: County of Onondaga

Wetland Treatment for CSO 078
Project ID: H-18

Annual CSO

Manholes

Combined Sewer

Sanitary Sewer

Storm Sewer

Trunk Sewer

Parcel Boundary

CSO Sub-basin

0 400 800
Feet
1" = 800' on 9x5 sheet

Onondaga Ave

Bellevue Ave

Hamilton Ave

CSO Basin-078

CSO Basin-018

12-in Combined

15-in Combined

24-in Combined

36-in Combined

48-in Combined

60-in Combined

72-in Combined

84-in Combined

96-in Combined

108-in Combined

120-in Combined

132-in Combined

144-in Combined

156-in Combined

168-in Combined

180-in Combined

192-in Combined

204-in Combined

216-in Combined

228-in Combined

240-in Combined

252-in Combined

264-in Combined

276-in Combined

288-in Combined

300-in Combined

312-in Combined

324-in Combined

336-in Combined

348-in Combined

360-in Combined

372-in Combined

384-in Combined

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1740-in Combined

1752-in Combined

1764-in Combined

1776-in Combined

1788-in Combined

1800-in Combined

1812-in Combined

1824-in Combined

1836-in Combined

1848-in Combined

1860-in Combined

1872-in Combined

1884-in Combined

1896-in Combined

1908-in Combined

1920-in Combined

1932-in Combined

1944-in Combined

1956-in Combined

1968-in Combined

1980-in Combined

1992-in Combined

2004-in Combined

2016-in Combined

2028-in Combined

2040-in Combined

2052-in Combined

2064-in Combined

2076-in Combined

2088-in Combined

2100-in Combined

2112-in Combined

2124-in Combined

2136-in Combined

2148-in Combined

2160-in Combined

2172-in Combined

2184-in Combined

2196-in Combined

2208-in Combined

2220-in Combined

2232-in Combined

2244-in Combined

2256-in Combined

2268-in Combined

2280-in Combined

2292-in Combined

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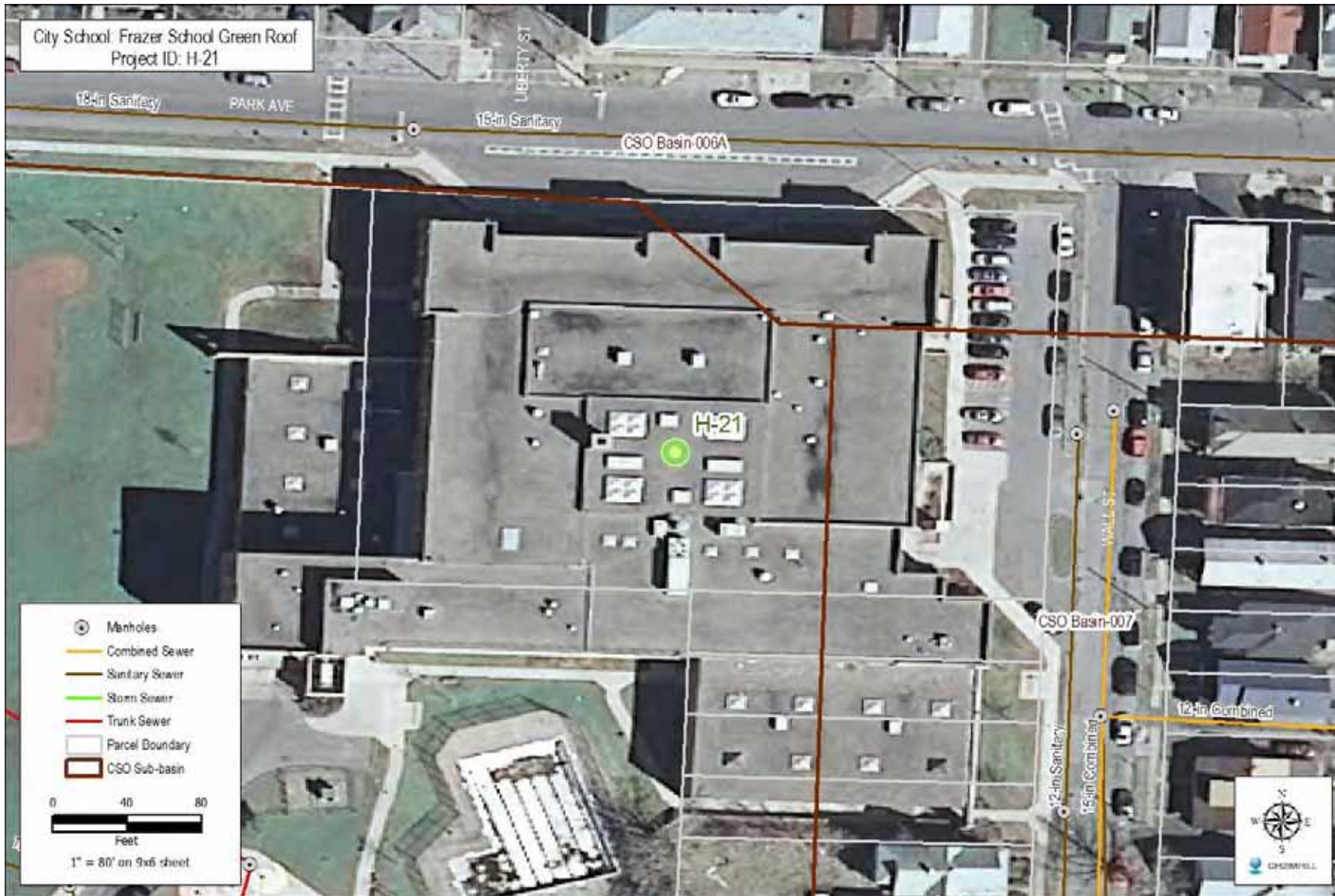
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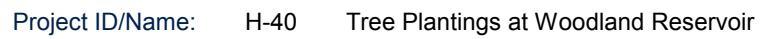


Project ID/Name: H-21 City School: Frazer School Green Roof

Proj Address: 741 Park Ave & Wall St

Parcel Owner: City of Syracuse





Parcel Owner:



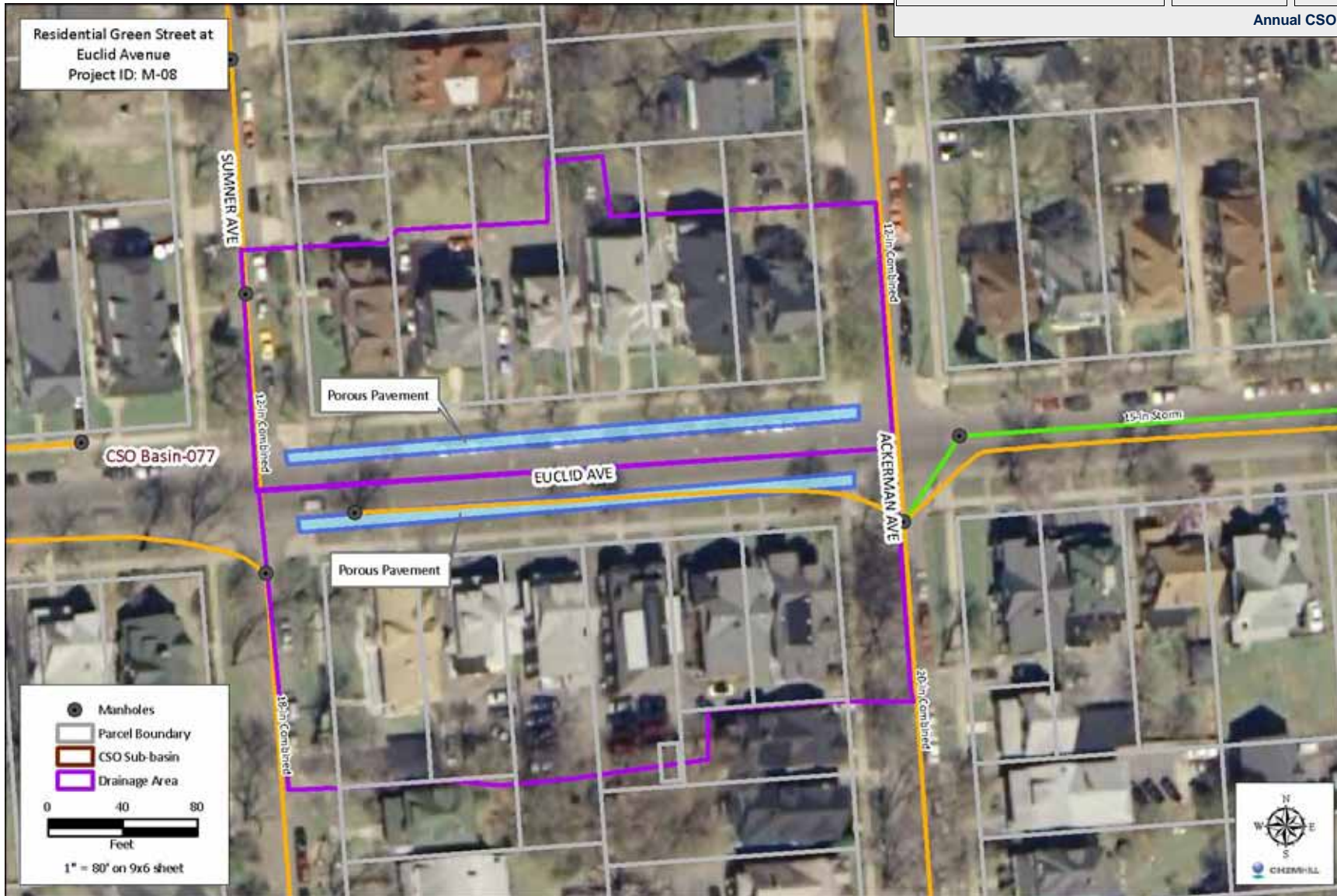


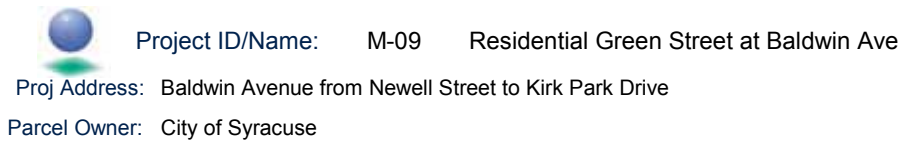
Project ID/Name: M-08 Residential Green Street at Euclid Ave

Proj Address: Euclid Avenue from Sumner Ave. to Ackerman Ave.

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Porous Pavement Parking Lot	33,000	5,000	589,000
Total	33,000	5,000	589,000
Annual CSO Reduction (gal)			418,190





Parcel Owner: City of Syracuse

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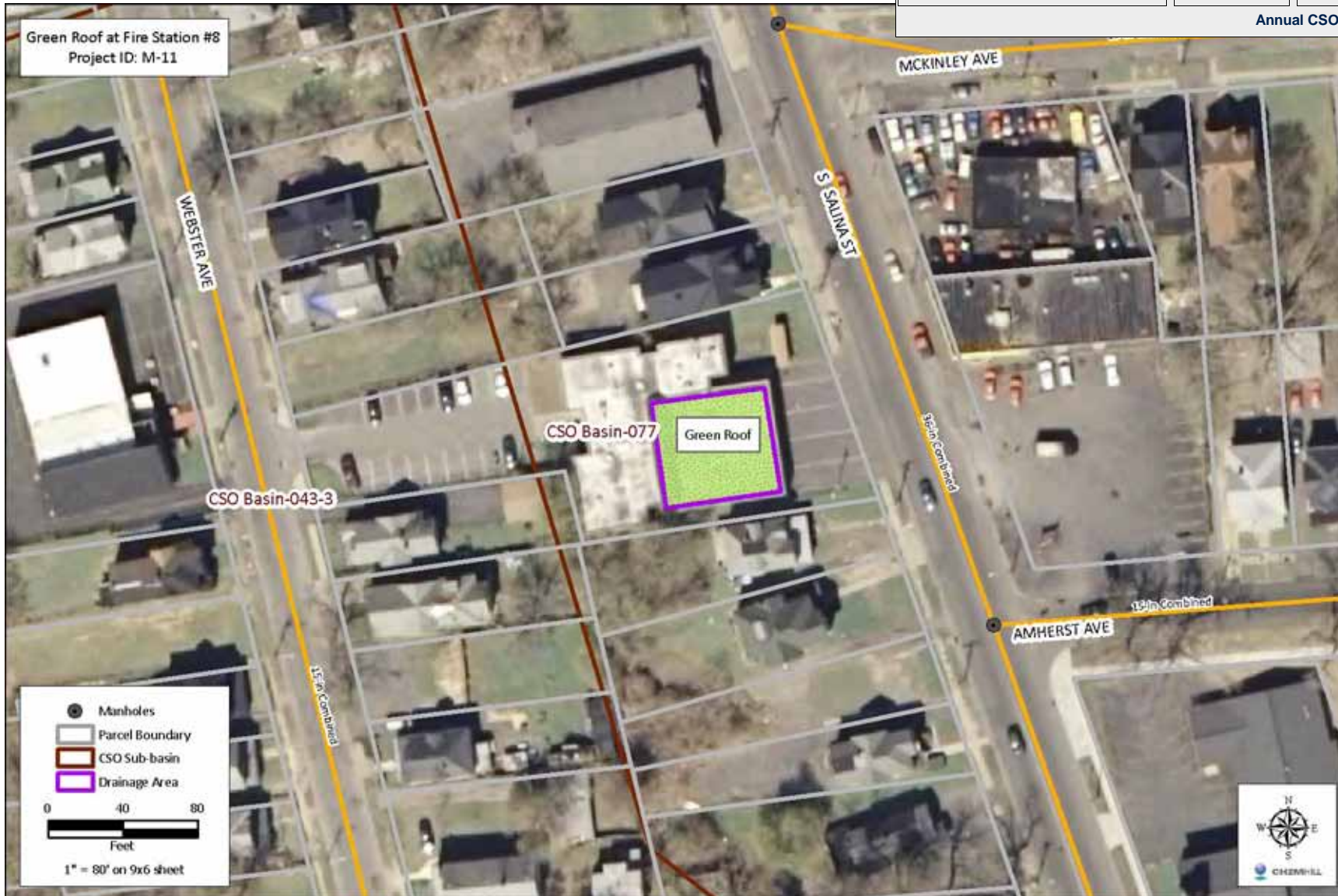


Project ID/Name: M-11a Green Roof at Firehouse Station #8

Proj Address: 2412 S. Salina St

Parcel Owner: City of Syracuse

Green Technology	Impervious Area (SF)	Green Infrastructure Area (SF or Gal)	Annual Capture (gal)
Green Roof	3,000	3,000	61,000
Total	3,000	3,000	61,000
Annual CSO Reduction (gal)			43,310





Project ID/Name: M-27 Brown Manufacturing Site

Proj Address: 101 Chester St & Bellvue Ave

Parcel Owner: City of Syracuse





Project ID/Name: M-28 South Salina SIDA Properties

Proj Address: 1000 Block of S Salina St

Parcel Owner: SIDA

