

Appendix C: Green Infrastructure Documentation Forms and Database

Green Infrastructure for Stormwater Management Documentation Form

This reporting tool was designed to meet an Order on Consent program requirement mandated by the Department of Environmental Conservation. The reporting and documentation of Green Infrastructure is part of a program crafted within the Albany Pool Communities Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP) and corresponding Order on Consent's Compliance Schedule under the "Green Infrastructure" program category.

The objective of this task is to provide a mechanism to document the review and installation of "green practices or infrastructure" within individual communities and to assess the use of green practices within new development and redevelopment projects for both the public and private sector. This task will augment documentation of green strategies within the six Albany Pool Communities responsible for administering the program under the Order and report to DEC the estimated runoff volume reduction from Green Infrastructure (GI) on an annual basis. The communities that make up this Pool are Albany, Troy, Cohoes, Watervliet, Rensselaer, and Green Island.

GI practices manage stormwater runoff while maintaining or restoring natural hydrology. On a regional scale, practices in green infrastructure include preserving and restoring natural landscape features, such as forests, floodplains, stream buffers, and wetlands, coupled with reducing impervious surface cover. On the local/site-specific scale, green infrastructure consists of practices such as rain gardens, bioretention, green roofs, porous pavements, and cisterns. Page two provides a listing and description of each GI practice.

Instructions – If approval includes GI Practices

Because of the administrative and regulatory role of the planning board and zoning boards, including the review of site plans, special use permits, and subdivision plats, these bodies play the most significant role in administering the municipal comprehensive plan and represent a "one stop shop" for development review within a community. The boards are thereby the best opportunity to capture data about the design and implementation of GI when it is employed.

Upon final approval of the site plan, special use permit, or subdivision by the planning board, or approval of a variance by the zoning board, the administrative or consultant staff (such as the MS4 Compliance officer) should complete the form or alternatively, request the applicant to complete and return the form. Data collected from this survey will be reported annually to DEC by the Capital District Regional Planning Commission, the program coordinator for the Combined Sewer Overflow Long Term Control Plan.

This form does not need to be completed if no GI practices are being employed.

When completed, the form shall be sent by mail, fax or email to:

Martin Daley
Albany Pool Communities CSO LTCP Program Coordinator
Capital District Planning Commission
One Park Place, Suite 102
Albany, NY 12205

Email: MDaley@cdrpc.org

Fax: (518) 453-0856

Phone: (518) 453-0850

Descriptions Specific Green Infrastructure Practices		
Group	Practice	Description
Runoff Reduction Techniques	Conservation of natural areas	Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.
	Sheetflow to riparian buffers or filter strips	Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.
	Vegetated open swale	The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration
	Tree planting / tree box	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.
	Stream daylighting for redevelopment projects	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.
	Rain garden	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression
	Green roof	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.
	Stormwater planter	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.
	Rain tank/Cistern	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities
	Porous Pavement	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils
	Reduction in paved parking area	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.

From Table 3.2 Acceptable Runoff Reduction Techniques, New York State Stormwater Management Design Manual

Green Infrastructure for Stormwater Management Documentation Form

1. Community (Check one): ☐ Albany ☐ Troy ☒ Cohoes ☐ Rensselaer ☐ Watervliet ☐ Green Island

2. Date: 7/15/16

3. Project name: Remsen Street Mixed-Use Development

4. Site address: 12 White Street, Cohoes, NY

5. Action Taken: ☐ Subdivision Approval; ☒ Site Plan Approval; ☐ Special Use Permit Approval ☐ Variance

6. Type(s) of Green Infrastructure (GI) practices employed on the site, check all that apply:

(Please refer to page 2 of this document for a table with descriptions of the practices below)

Green Infrastructure (GI) practices employed in final application: ☐ Conservation of natural areas
☐ Sheetflow to riparian buffers or filter strips ☐ Vegetated open swale ☒ Tree planting / tree box ☐ Stream daylighting for redevelopment projects ☐ Rain garden ☐ Green roof ☒ Stormwater planter ☐ Rain tank/Cistern
☒ Porous Pavement ☒ Reduction in paved parking area

7. Estimated runoff reduction volume: 500 CF

8. Projected water quality benefits: 500 CF

(Please attach a copy of the runoff volume reduction and water quality calculations if available)

9. Contact information for engineering / landscape architecture firm or individuals that designed the GI component the project: The Chazen Companies

10. Contact information for entity responsible for the installation GI component of the project:
Unknown at this time.

11. Does the GI practice have a specific maintenance plan tailored specially for GI? ☐ Yes ☒ No

11a. If yes, please attach a copy of the plan and include estimated annual cost \$

12. Contact information for entity responsible for maintaining the GI component of the project:
Project Sponsor/Owner

13. Name and contact information for person filling out this form: James A. Rymph, RLA - (518) 266-7323 arymph@chazencompanies.com

14. Please attach an 8 ½" x 11" map of the proposed project illustrating the location(s) of GI practices.
Additional comments and notes are welcome.

When completed, the form shall be sent by mail, fax or email to:

Martin Daley
Albany Pool Communities CSO LTCP Program Coordinator
Capital District Planning Commission
One Park Place, Suite 102
Albany, NY 12205

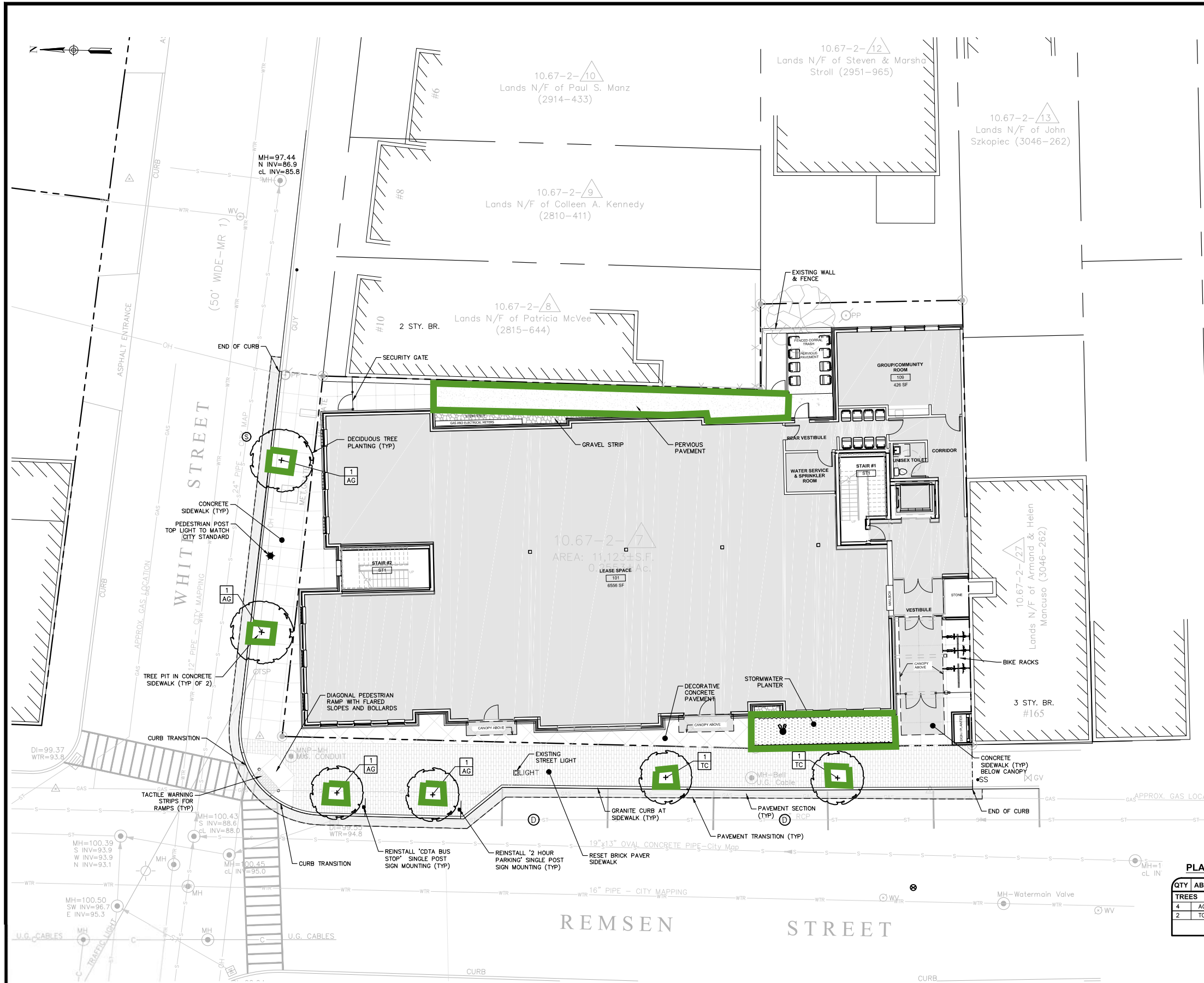
Email: MDaley@cdrpc.org

Fax: (518) 453-0856

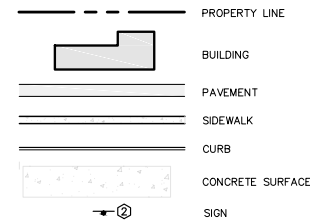
Phone: (518) 453-0850

Practice Specific Sizing Calculation Worksheet													
STORMWATER PLANTER NO. 1 (PLT-1)													
Calculate Required Filter Bed Area													
$A_f = (WQ_v) * (d_f) / [(k) * (h_f + d_f) * (t_f)]$ <p>where: A_f = Surface area of filter bed (SF) WQ_v = Required Water Quality Volume (CF) d_f = Filter bed depth (ft) k = Coefficient of permeability of filter media (ft/day) h_f = Average height of water above filter bed (ft) t_f = Design filter bed drain time (days)</p>													
SMP ID	WQ_v (cubic feet)	d_f (feet)	k (ft/day)	h_f (feet)	t_f (days)	Minimum A_f (sq-ft)	Provided A_f (sq-ft)						
PLT-1		1.5	4	0.5	0.17		174						
Calculate Provided Water Quality & Runoff Reduction Volume													
<p>Provided WQ_v = V_f + V_s + V_p</p> <p>where: V_f = Volume of Filter (CF) = A_f * d_f * n-filter V_s = Volume of Stone Drainage Course (CF) = A_f * d_s * n-stone V_p = Volume of Ponding (CF)</p> <p style="margin-left: 40px;"> V_f = 91 CF V_s = 47 CF V_p = 174 CF </p> <div style="display: flex; justify-content: space-between;"> <div> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">Provided WQ_v =</td> <td style="padding: 2px;">312</td> <td style="padding: 2px;">CF</td> </tr> <tr> <td style="padding: 2px;">Provided RR_v =</td> <td style="padding: 2px;">312</td> <td style="padding: 2px;">CF</td> </tr> </table> </div> <div> <p><i>**100% RR_v Capacity</i></p> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between;"> <div> d_f = 1.5 ft n-filter = 0.35 d_s = 0.67 ft n-stone = 0.40 </div> </div> </div>								Provided WQ_v =	312	CF	Provided RR_v =	312	CF
Provided WQ_v =	312	CF											
Provided RR_v =	312	CF											
TREE PLANTINGS													
Calculate Provided Impervious Area Reduction													
Caliper of New Deciduous Tree	2	in	<i>must be 2-in caliper or larger</i> <i>must be 6-ft tall or larger</i> <i>A 100 sf directly connected impervious area reduction is permitted for each new tree meeting the above criteria.</i>										
Height of New Evergreen Tree	6	ft											
Area Reduced per Tree	100	sf											
Number of Trees	6												
Calculated Impervious Area Reduction=			0.014 acres										
Calculate Provided Water Quality & Runoff Reduction Volume													
SMP ID	P (inches)	A (acres)	Impervious Cover (acres)	I (%)	R_v	WQ_v/RR_v (acre-feet) (cubic feet)							
Tree Plantings	1.10	0.014	0.014	100	0.95	0.001	40						
POROUS PAVEMENT													
Calculate Provided Water Quality & Runoff Reduction Volume													
<p>Provided WQ_v = V_s</p> <p>where: V_s = Volume of Stone Drainage Course (CF) = A_f * d_s * n-stone</p> <p style="margin-left: 40px;">V_s = 148 CF</p> <div style="display: flex; justify-content: space-between;"> <div> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">Provided WQ_v =</td> <td style="padding: 2px;">148</td> <td style="padding: 2px;">CF</td> </tr> <tr> <td style="padding: 2px;">Provided RR_v =</td> <td style="padding: 2px;">148</td> <td style="padding: 2px;">CF</td> </tr> </table> </div> <div> <p><i>**100% RR_v Capacity</i></p> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between;"> <div> Provided A_f = 370 sf d_s = 1.00 ft n-stone = 0.40 </div> </div> </div>								Provided WQ_v =	148	CF	Provided RR_v =	148	CF
Provided WQ_v =	148	CF											
Provided RR_v =	148	CF											

Total WQ_v/RR_v Provided=	500	CF
--	------------	-----------



SITE LEGEND:



SITE PLAN NOTES:

- GENERAL CONSTRUCTION:**
- THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
 - ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
 - ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY.
 - ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
 - NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
 - THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
 - CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
 - CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
 - NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
 - ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE. SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE, REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.
- LAYOUT:**
- BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS-BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.
- PAVING:**
- NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
 - SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
 - PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SOLED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
 - PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAYS' WORK.
 - TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
 - TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407. TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
 - REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
 - APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ADJUTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
 - TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
 - AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.
- STRIPING:**
- STRIPES PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.



GREEN INFRASTRUCTURE PRACTICE

PLANT LIST

QTY	ABRV	BOTANICAL NAME	COMMON NAME	SIZE	COND	SPACING	REMARKS
TREES							
4	AG	Amelanchier grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	2 - 2.5" Cal.	B&B	As Shown	Tree Form
2	TC	Tilia cordata 'Greenspire'	Greenspire Linden	2 - 2.5" Cal.	B&B	As Shown	

SITE PLAN APPROVAL - NOT FOR CONSTRUCTION



ORIGINAL SCALE IN INCHES

ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS DRAWING OR DOCUMENT, OR ANY PORTION THEREOF, WITHOUT THE EXPRESS WRITTEN PERMISSION OF CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C. IS PROHIBITED. THIS DRAWING OR DOCUMENT IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT, APPLICATION AND SITUATION FOR WHICH IT WAS INTENDED. ANY MODIFICATION OF THIS DRAWING OR DOCUMENT, OR ANY USE FOR ANY PROJECT, APPLICATION OR SITUATION OTHER THAN THAT FOR WHICH IT WAS INTENDED, WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING OR DOCUMENT IN ANY WAY, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED DESIGN PROFESSIONAL (PROFESSIONAL ENGINEER, LAND SURVEYOR, ARCHITECT OR LANDSCAPE ARCHITECT). IF THIS DRAWING OR DOCUMENT IS ALTERED, THE ALTERING DESIGN PROFESSIONAL SHALL AFFIX TO THE DRAWING OR DOCUMENT HIS OR HER SEAL, THE NOTATION "ALTERED BY FOLLOWED BY HIS OR HER SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION."



CHAZEN ENGINEERING, LAND SURVEYING
& LANDSCAPE ARCHITECTURE CO., D.P.C.

Office Locations:

Dutchess County Office:
21 Fox Street
Poughkeepsie, New York 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street
Troy, New York 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road
Queensbury, New York 12804
Phone: (518) 812-0513

1	6/30/16	ISSUED FOR SITE PLAN APPROVAL
rev.	date	description

REMSEN STREET MIXED-USE DEVELOPMENT

SITE & LANDSCAPING PLAN

12 WHITE STREET, CITY OF COHOES, ALBANY COUNTY

designed JQ	checked AR
date 6/3/16	scale None
project no. 31635.00	sheet no. C120

Green Infrastructure for Stormwater Management Documentation Form

1. Community (Check one): ☐ Albany ☐ Troy ☒ Cohoes ☐ Rensselaer ☐ Watervliet ☐ Green Island

2. Date: 7/15/16

3. Project name: Sargent Street Mixed-Use Development

4. Site address: 330 Ontario Street, Cohoes, NY

5. Action Taken: ☐ Subdivision Approval; ☒ Site Plan Approval; ☐ Special Use Permit Approval ☐ Variance

6. Type(s) of Green Infrastructure (GI) practices employed on the site, check all that apply:

(Please refer to page 2 of this document for a table with descriptions of the practices below)

Green Infrastructure (GI) practices employed in final application: ☐ Conservation of natural areas
☐ Sheetflow to riparian buffers or filter strips ☐ Vegetated open swale ☒ Tree planting / tree box ☐ Stream daylighting for redevelopment projects ☐ Rain garden ☐ Green roof ☒ Stormwater planter ☐ Rain tank/Cistern
☒ Porous Pavement ☒ Reduction in paved parking area

7. Estimated runoff reduction volume: 4,086 CF

8. Projected water quality benefits: 4,086 CF

(Please attach a copy of the runoff volume reduction and water quality calculations if available)

9. Contact information for engineering / landscape architecture firm or individuals that designed the GI component the project: The Chazen Companies

10. Contact information for entity responsible for the installation GI component of the project:
Unknown at this time.

11. Does the GI practice have a specific maintenance plan tailored specially for GI? ☐ Yes ☒ No

11a. If yes, please attach a copy of the plan and include estimated annual cost \$

12. Contact information for entity responsible for maintaining the GI component of the project:
Project Sponsor/Owner

13. Name and contact information for person filling out this form: James A. Rymph, RLA - (518) 266-7323 arymph@chazencompanies.com

14. Please attach an 8 ½" x 11" map of the proposed project illustrating the location(s) of GI practices.
Additional comments and notes are welcome.

When completed, the form shall be sent by mail, fax or email to:

Martin Daley
Albany Pool Communities CSO LTCP Program Coordinator
Capital District Planning Commission
One Park Place, Suite 102
Albany, NY 12205

Email: MDaley@cdrpc.org

Fax: (518) 453-0856

Phone: (518) 453-0850

Practice Specific Sizing Calculation Worksheet																														
POROUS PAVEMENT																														
Calculate Provided Water Quality Volume																														
Provided WQv = Vs where: Vs = Volume of Stone Drainage Course (CF) = Af * ds * n-stone				Provided Af= 9,890 sf ds = 1.00 ft n-stone = 0.40																										
Vs = 3956 CF																														
Provided WQv = 3956 CF																														
Calculate Provided Runoff Reduction Volume																														
Underdrain? No																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">RRv =</td> <td style="width: 20%;">3,956</td> <td style="width: 20%;">CF</td> </tr> <tr> <td>RRv Applied =</td> <td>3,956</td> <td>CF</td> </tr> </table>				RRv =	3,956	CF	RRv Applied =	3,956	CF																					
RRv =	3,956	CF																												
RRv Applied =	3,956	CF																												
TREE PLANTINGS																														
Calculate Provided Impervious Area Reduction																														
Caliper of New Deciduous Tree	2	in	must be 2-in caliper or larger																											
Height of New Evergreen Tree	6	ft	must be 6-ft tall or larger																											
Area Reduced per Tree	100	sf	A 100 sf directly connected impervious area reduction is permitted for																											
Number of Trees	13																													
Calculated Impervious Area Reduction=			0.030 acres																											
Calculate Provided Water Quality & Runoff Reduction Volume																														
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">SMP ID</th> <th>P</th> <th>A</th> <th>Impervi ous Cover</th> <th>I</th> <th>Rv</th> <th colspan="2">WQv/RRv</th> </tr> <tr> <th>(inches)</th> <th>(acres)</th> <th>(acres)</th> <th>(%)</th> <th></th> <th>(acre-feet)</th> <th>(cubic feet)</th> </tr> </thead> <tbody> <tr> <td>Tree Plantings</td> <td>1.10</td> <td>0.030</td> <td>0.030</td> <td>100</td> <td>0.95</td> <td>0.003</td> <td>130</td> </tr> </tbody> </table>								SMP ID	P	A	Impervi ous Cover	I	Rv	WQv/RRv		(inches)	(acres)	(acres)	(%)		(acre-feet)	(cubic feet)	Tree Plantings	1.10	0.030	0.030	100	0.95	0.003	130
SMP ID	P	A	Impervi ous Cover	I	Rv	WQv/RRv																								
	(inches)	(acres)	(acres)	(%)		(acre-feet)	(cubic feet)																							
Tree Plantings	1.10	0.030	0.030	100	0.95	0.003	130																							

Total WQv/RRv Provided=	4,086	CF
--------------------------------	--------------	-----------

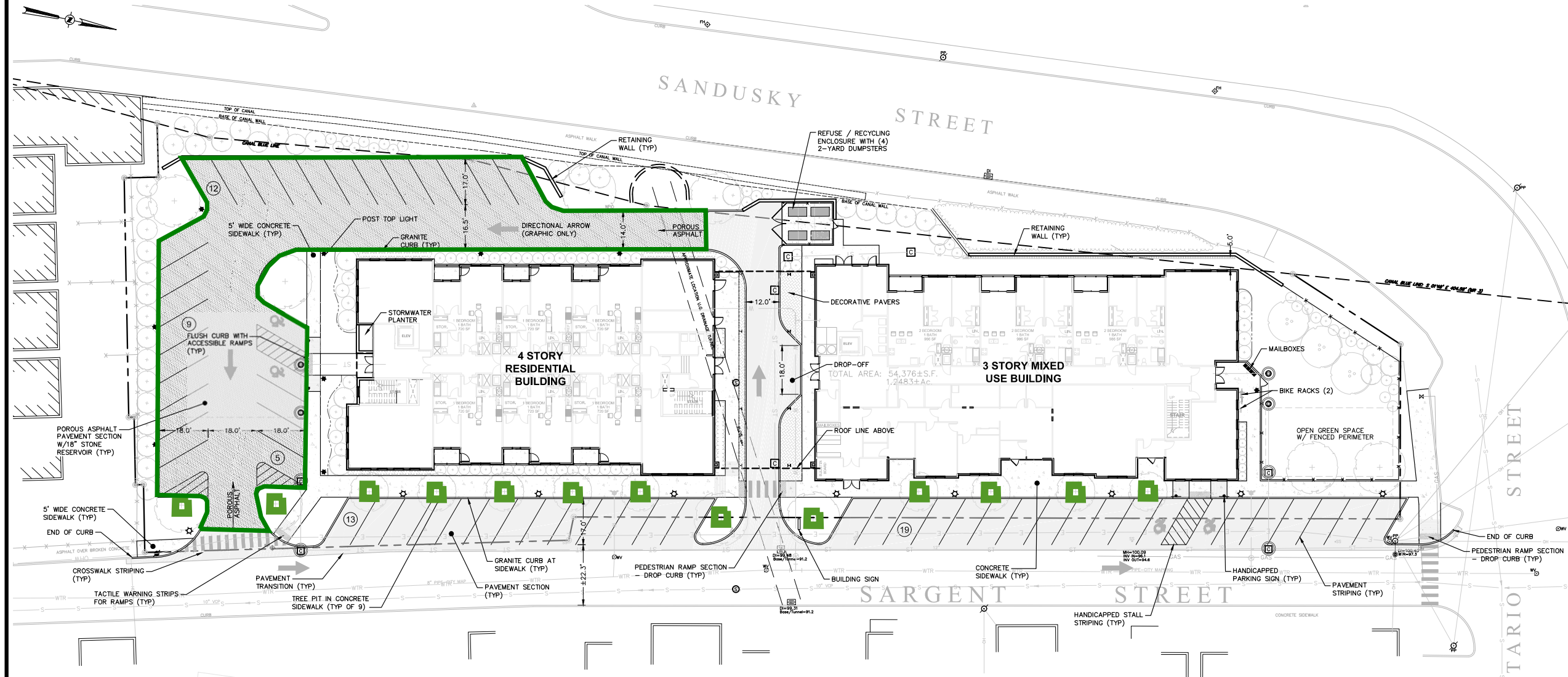
GREEN INFRASTRUCTURE PRACTICE

SITE LEGEND:

- BUILDING
- PAVEMENT
- POROUS PAVEMENT
- SIDEWALK
- CURB
- CONCRETE SURFACE
- PARKING STRIPING
- SIGN
- PARKING COUNT

SITE PLAN NOTES:

- GENERAL CONSTRUCTION:**
- THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
 - ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
 - ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY.
 - ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
 - NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
 - THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
 - CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
 - CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
 - NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
 - ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE. SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE, REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.
- LAYOUT:**
- BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.
- PAVING:**
- NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
 - SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
 - PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SOLED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
 - PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAYS' WORK.
 - TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
 - TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008. SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407. TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
 - REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
 - APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
 - TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
 - AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.
- STRIPING:**
- STRIPES PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
 - COLOR:
 - DRIVE LANE DIVIDERS - WHITE OR AOE
 - NO PARKING ZONE WARNINGS - WHITE OR AOE
 - PARKING DIVIDERS - WHITE OR AOE
 - WALKING LINES - WHITE OR AOE
 - HANDICAP PARKING LINES & SYMBOL - BLUE



SITE PLAN APPROVAL - NOT FOR CONSTRUCTION

THE VECINO GROUP
Housing for the greater good.

ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS DRAWING OR DOCUMENT, OR ANY PORTION THEREOF, WITHOUT THE EXPRESS WRITTEN PERMISSION OF CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C. IS PROHIBITED. THIS DRAWING OR DOCUMENT IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT, APPLICATION AND SITUATION FOR WHICH IT WAS INTENDED. ANY MODIFICATION OF THIS DRAWING OR DOCUMENT, OR ANY USE FOR ANY PROJECT, APPLICATION OR SITUATION OTHER THAN THAT FOR WHICH IT WAS INTENDED, WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING OR DOCUMENT IN ANY WAY, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED DESIGN PROFESSIONAL (PROFESSIONAL ENGINEER, LAND SURVEYOR, ARCHITECT OR LANDSCAPE ARCHITECT). IF THIS DRAWING OR DOCUMENT IS ALTERED, THE ALTERING DESIGN PROFESSIONAL SHALL AFFIX TO THE DRAWING OR DOCUMENT HIS OR HER SEAL, THE NOTATION "ALTERED BY FOLLOWED BY HIS OR HER SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION."

THE Chazen COMPANIES
Proud to be Employee Owned

Engineers
Land Surveyors
Planners
Environmental & Safety Professionals
Landscape Architects

CHAZEN ENGINEERING, LAND SURVEYING
& LANDSCAPE ARCHITECTURE CO., D.P.C.

Office Locations:

Dutchess County Office: 21 Fox Street Poughkeepsie, New York 12601 Phone: (845) 454-3980	Capital District Office: 547 River Street Troy, New York 12180 Phone: (518) 273-0055	North Country Office: 375 Bay Road Queensbury, New York 12804 Phone: (518) 812-0513
---	---	--

1	6/30/16	ISSUED FOR SITE PLAN APPROVAL
rev.	date	description

SARGENT STREET MIXED-USE DEVELOPMENT

SITE PLAN

330 ONTARIO/55 SARGENT STREET, CITY OF COHOES, ALBANY COUNTY

designed JQ	checked AR
date 6/3/16	scale None
project no. 31635.00	
sheet no. C230	

Appendix D: CSO Volume Reduction and Capture for 2016

Capture and Percent Reductions for all LTCP Appendix B Projects Completed During 2016 By Type

Project Type	Project Name	Project Code	Project Location	Milestone(s)	Appendix B Deadline Dates	Action Performed	Annual Volume Captured (Mgal)	Annual Percent CSO Reduction (%)
Best Management Practices	Upgrade Pump Stations Located in Troy	BMP-05	Troy	Operational Start up and Construction Completion Date	4/1/2016	3/30/2016	179.0000	4.3447
Best Management Practices	Regulator Capacity Improvements	BMP-04	Rensselaer	Operational Start up and Construction Completion Date	12/15/2015*	5/21/2016	4.0000	0.0324
Best Management Practices	Regulator Capacity Improvements	BMP-04	Troy	Operational Start up and Construction Completion Date	12/15/2015*	5/21/2016	30.0000	0.7282
Total by best management practices							213.0000	5.1052
Green Infrastructure	Quail Street Green Infrastructure Project	GI-03	Albany	Construction Completion Date & Operational Start Up Date	12/15/2016	10/28/2016	8.8670	0.2152
Green Infrastructure	Monument Square Green Infrastructure Project	GI-04	Troy	Construction Completion Date & Operational Start Up Date	12/15/2016	11/18/2016	0.7600	0.0184
Total by green infrastructure							8.8670	0.2337
Total Capture and Percent Reductions for all Categories							221.8670	5.3388

Capture and Percent Reduction on Cumulative Basis for all LTCP Appendix B Projects During 2016 by Community

Project Type	Project Name	Project Code	Project Location	Milestone	Appendix B Deadline Dates	Action Performed	Annual Volume Captured (Mgal)	Community Level Annual Percent CSO Reduction (%)
Green Infrastructure	Quail Street Green Infrastructure Project	GI-03	Albany	Construction Completion Date & Operational Start Up Date	12/15/2016	10/28/2016	8.8670	0.1200
Total for the City of Albany							8.8670	0.1200
Best Management Practices	Regulator Capacity Improvements	BMP-04	Troy	Operational Start up and Construction Completion Date	12/15/2015*	5/21/2016	30.0000	15.0000
Total for the City of Rensselaer							30.0000	15.0000
Best Management Practices	Upgrade Pump Stations Located in Troy	BMP-05	Troy	Operational Start up and Construction Completion Date	4/1/2016	3/30/2016	179.0000	12.0134
Green Infrastructure	Monument Square Green Infrastructure Project	GI-04	Troy	Construction Completion Date & Operational Start Up Date	12/15/2016	11/18/2016	0.7600	0.0170
Total for the City of Troy							179.0000	12.0304

The annual volume captured is estimated based on the individual project parameters in conjunction with baseline wet-weather capture statistics documented in the Albany Pool CSO LTCP for a typical year. Annual percent CSO reductions were based on baseline annual overflows for the Albany Pool (1,236 MG); while the host community CSO volume reductions were based on the respective annual overflows volumes at the community level, as documented in the Albany Pool CSO LTCP.