

SOLTESZ Stormwater Computation Sheet Version: 2016.09.27 (JAH) Date: 6/21/2023
 Project Name: Rock Spring Park
 Project No: 0093-04-00
 By: KAS
 Checked: KW

**Rock Spring Park
ESD's COMPUTATIONS**

Property Target

Enter Study Point Area = 147,643 sq-ft (See Technical Policy guidelines for details)
 Enter Study Point Ultimate (Existing & Proposed) Impervious Area = 98,252 sq-ft
 % of Impervious Area = 66.5%

HSG	RCN	Area (sq-ft)	Percentage	Target P _i
A	38	0	0%	2.20 in
B	55	147,643	100%	2.20 in
C	70	0	0%	2.00 in
D	77	0	0%	1.80 in
Totals			100%	2.20 in

Composite RCN for "Woods in Good Cond." = 55

ESD's Required Within LOD

Limit of Disturbance (LOD) Area (A) = 147,643 sq-ft
 Enter LOD Proposed Impervious Area = 98,252 sq-ft
 % of Impervious Area = 66.5%
 Volumetric Runoff Coefficient, R_{vol} = 0.649

HSG	RCN	Area (sq-ft)	Percentage
A	38	0	0%
B	55	147,643	100%
C	70	0	0%
D	77	0	0%
Totals		147,643	100%

LOD Area	Study Point Target P _i	Target ESD's (ac-ft)	Target ESD's (cu-ft)
147,643 sq-ft (From Above)	2.20 in (From Above)	0.403 ac-ft	17,565 cu-ft

Equation:
 Target Design Runoff Volume, ESD_v = (P_i * A_{LOD} * R_{vol}) * 435600 / 12
 Volumetric Runoff Coefficient, R_{vol} = (R_i * I_h) / (2.31 + I_h)

SOLTESZ Date: 6/21/2023
 Project Name: Rock Spring Park
 Project No: 0093-04-00
 By: KAS
 Checked: KW

**Ultimate ESD Summary Table
Rock Spring Park**

Study Point Target

Study Point Total Area = 147,643 sq-ft
 Study Point Ultimate (Existing & Proposed) Impervious Area = 98,252 sq-ft
 Study Point Impervious Area Percentage (%) = 66.5% (See Technical Policy guidelines for details)

HSG	RCN	Area (sq-ft)	Percentage	Target P _i
A	38	0	0%	2.20 in
B	55	147,643	100%	2.20 in
C	70	0	0%	2.00 in
D	77	0	0%	1.80 in
Totals			100%	2.20 in

Study Point Target Composite RCN for "Woods in Good Cond." = 55
 Study Point Target P_i (in) = 2.20
 Sum of Target ESD's (cu-ft) = 17,565
 Sum of Target ESD's (ac-ft) = 0.403

Provided Treatment Summary

Study Point Target P_i (in) = 2.20
 New Study Point P_i (in) = 2.20
 LOD Provided ESD's (cu-ft) = 20,048
 Excess ESD's (cu-ft) = 2,483 No Structural Volume Required

Study Point Summary

Study Point Provided P_i (in) = 2.20
 Study Point Volumetric Runoff Coefficient, R_v = 0.649
 Study Point Reduced RCN = 55

Study Point Target Composite RCN for "Woods in Good Cond." = 55
 Study Point Reduced Composite RCN for "Woods in Good Cond." = 55

Individual Facility Summary

ESD Facility	Drainage Area (sq-ft)	Imp. D.A. (sq-ft)	% of Imp.	Provided ESD's (cu-ft)	Type of Facility
188	25,000	25,000	100%	3,482	Micro Bio-retention 188
189	25,000	25,000	100%	4,417	Micro Bio-retention 189
189	7,000	7,000	100%	1,444	Micro Bio-retention 189
190	19,000	19,000	100%	3,727	Micro Bio-retention 190
191	25,000	19,000	76%	3,727	Micro Bio-retention 191
192	25,000	8,000	32%	1,777	Micro Bio-retention 192
193	25,000	8,000	32%	1,777	Micro Bio-retention 193
TOTALS	127,000 sq-ft	99,000 sq-ft	78%	20,048 cu-ft	

Structural Treatment Summary

Structural Treatment Volume Provided (cu-ft) = 0
 Additional Structural Treatment Volume Required (cu-ft) = 2,483 (From Above)

Equation:
 Target Design Runoff Volume, ESD_v = (P_i * A_{LOD} * R_{vol}) * 435600 / 12
 Volumetric Runoff Coefficient, R_{vol} = (R_i * I_h) / (2.31 + I_h)

NOTES:

- ALL STORMWATER MANAGEMENT PRACTICES/ESD's SHOWN ARE ILLUSTRATIVE.
- BASED ON THE DRAINAGE AREA STUDY AND COMPUTATIONS, THE ACTUAL LOCATION, SIZE, AND NUMBER OF ESD'S REQUIRED WILL BE DETERMINED AT FINAL SITE PLAN.

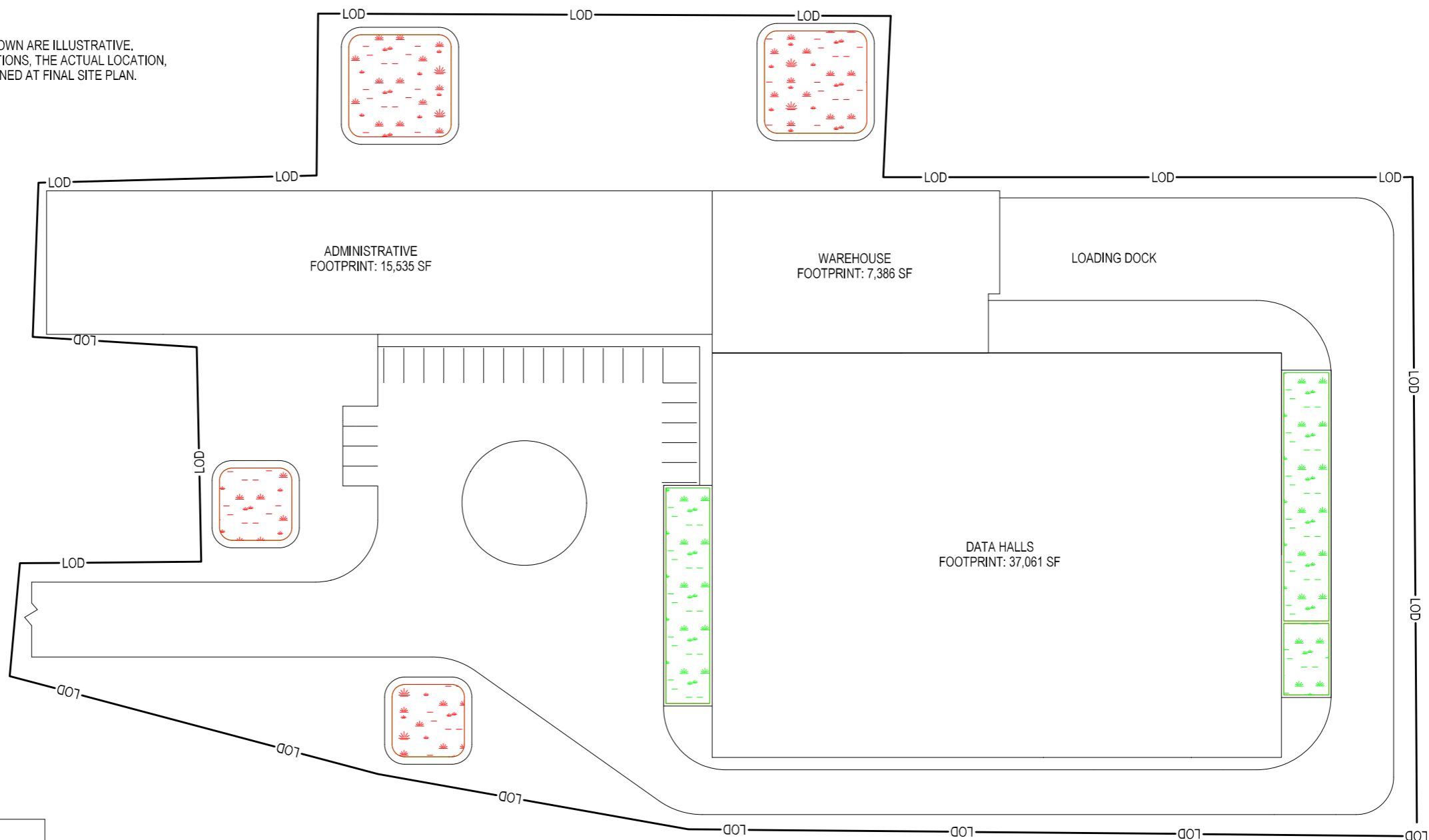
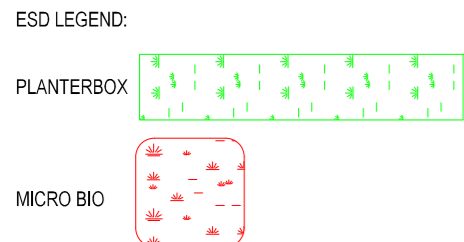


Exhibit # 13



SOLTESZ, INC.
 ROCKVILLE OFFICE
 2 Research Place, Suite 100
 Rockville, MD 20850
 P. 301.948.2750 F. 301.948.9067
 www.solteszco.com

Engineering
 Surveying
 Planning
 Environmental Sciences

REVISION COMMENT HERE XXX XXXXXX

MISS UTILITY NOTE
 INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES HAS BEEN OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND VERIFY CROSSINGS BY RECORD TESTS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT THE UTILITIES AT LEAST 48 HOURS BEFORE THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THE PLAN OR THE LEVEL IS INCORRECT, THE CONTRACTOR MUST CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THE PLAN.

OWNER / DEVELOPER / APPLICANT
 TERRAINNOVATIONS
 954-206-8770
 JEFF@TERRAINNOVATIONS.COM
 JEFF FERREL

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. _____ EXPIRATION DATE: _____

TYPICAL SWM CONCEPT EXHIBIT
DICKERSON POWER PLANT
 21200 MARTINSBURG RD, DICKERSON, MD 20842
 LOTS 2, 3, 7, 8 AND 9
 POOLESVILLE (04) ELECTION DISTRICT, MONTGOMERY COUNTY, MARYLAND

TAX MAP BV	ZONING CATEGORY: H AR
DATE: 6/21/2023	DESIGNED: TR
DESIGNED BY: TR	CHECKED: CW
DATE: 6/21/2023	CHECKED BY: JS
DATE: 6/21/2023	CHECKED BY: NCS
PROJECT NO. 40250002	