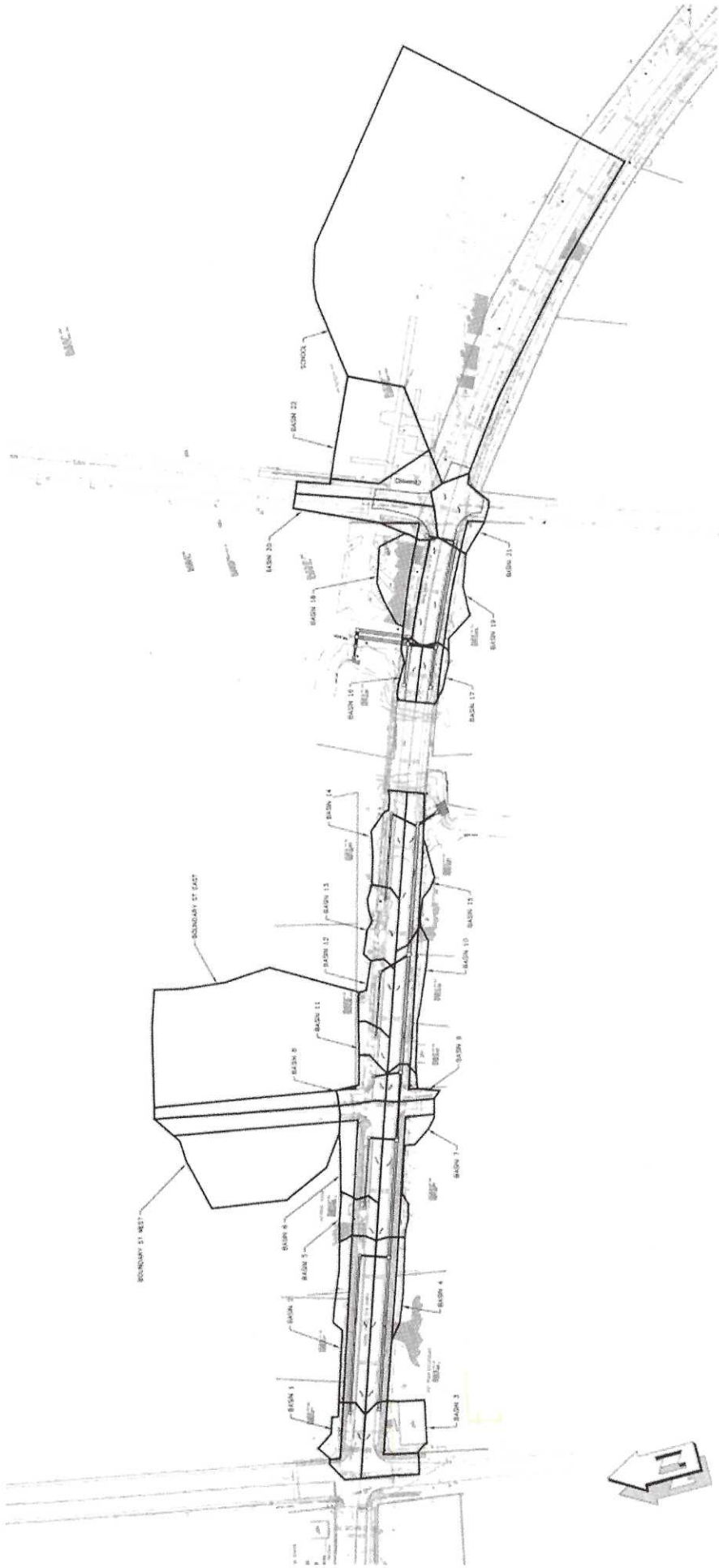


# BMP SUMMARY TABLE

BMP Number	Drainage Basin No. (Plan Set Sheet D1)	Contributing Drainage Area (sf)	CDA Turf Cover (sf)	CDA Impervious Cover (sf)	Target/ Req'd SWrv* (cf)	Available SWrv (cf)	Excess SWrv Available (cf)
BMP-01A	1 & 2	10,545	3,545	7,000	1,137.5	2,196.4	1,058.9
BMP-01B	3 & 4	11,729	3,416	8,313	1,350.9	1,378.0	27.1
BMP-01C	5 & 6	7,440	3,426	4,014	652.3	733.2	80.9
BMP-01D	7	5,892	2,532	3,360	546.0	1,073.0	527.0
BMP-01E	8, 9, 10 & Boundary E & W	61,565	35,792	25,773	4,188.1	1,456.0	(2,732.1)
BMP-01F	11 & 12	4,041	1,892	2,149	349.2	693.2	344.0
BMP-01G	13 & 14	6,509	3,136	3,373	548.1	1,127.8	579.7
BMP-01H	15	4,696	1,521	3,175	515.9	1,602.0	1,086.1
<b>System 01 Sub-total</b>		<b>112,417</b>	<b>55,260</b>	<b>57,157</b>	<b>9,288.0</b>	<b>10,259.6</b>	<b>971.6</b>
BMP-02A	18, 19, 20 & 21	19,552	9,892	9,660	1,569.8	1,353.0	(216.8)
BMP-02B	17	2,037	808	1,229	199.7	202.0	2.3
BMP-02C	16	1,526	638	888	144.3	207.0	62.7
BMP-02D	-	-	-	-	-	1,274.0	1,274.0
<b>System 02 Sub-total</b>	-	<b>23,115</b>	<b>11,338</b>	<b>11,777</b>	<b>1,913.8</b>	<b>3,036.0</b>	<b>1,122.2</b>
BMP-03	22	14,559	4,862	9,697	1,575.8	110.0	(1,465.8)
<b>System 03 Sub-total</b>	-	<b>14,559</b>	<b>4,862</b>	<b>9,697</b>	<b>1,575.8</b>	<b>110.0</b>	<b>(1,465.8)</b>
<b>Project Total</b>	-	<b>150,091</b>	<b>71,460</b>	<b>78,631</b>	<b>12,777.5</b>	<b>13,405.6</b>	<b>628.1</b>



# BRIDGE ST PROJECT SUB-BASIN DRAINAGE AREAS

TEST LOCATION: 3000' W. OF THE BRIDGE  
 GEOTECH REPORT: 11-25-2021

GEOTECH BORING RESULTS GHD REPORT 06-25-2020

MATERIAL	C-1	C-2
ASPHALT	4.5"	2"
BASE	0 - 48" (GALTY FINE SAND)	0 - 48" (GALTY FINE SAND)

INFLATATION RATE	I-1
	10.2 IN/HR

GEOTECH BORING RESULTS GHD REPORT 06-25-2021

MATERIAL	I-2	I-3
ASPHALT	2.5"	0.5"
BASE	2.5" (SAND ASPHALT)	3.5" (SAND ASPHALT)

INFLATATION RATE	I-2	I-3
	45 IN/HR	38 IN/HR

GEOTECH BORING RESULTS GHD REPORT 11-25-2021

MATERIAL	B-1	B-2
SLTY FINE SAND	15"	5"
FINE SAND	5"	12"

# GRANT AGREEMENT # EQ-1-599

SECTION 319 GRANT PROJECT #5 - PONDING LOAD REDUCTION BMP  
 IN SUPPORT OF THE MAY RIVER WATERSHED ACTION PLAN,  
 PHASE V- BRIDGE STREET STREETScape PROJECT

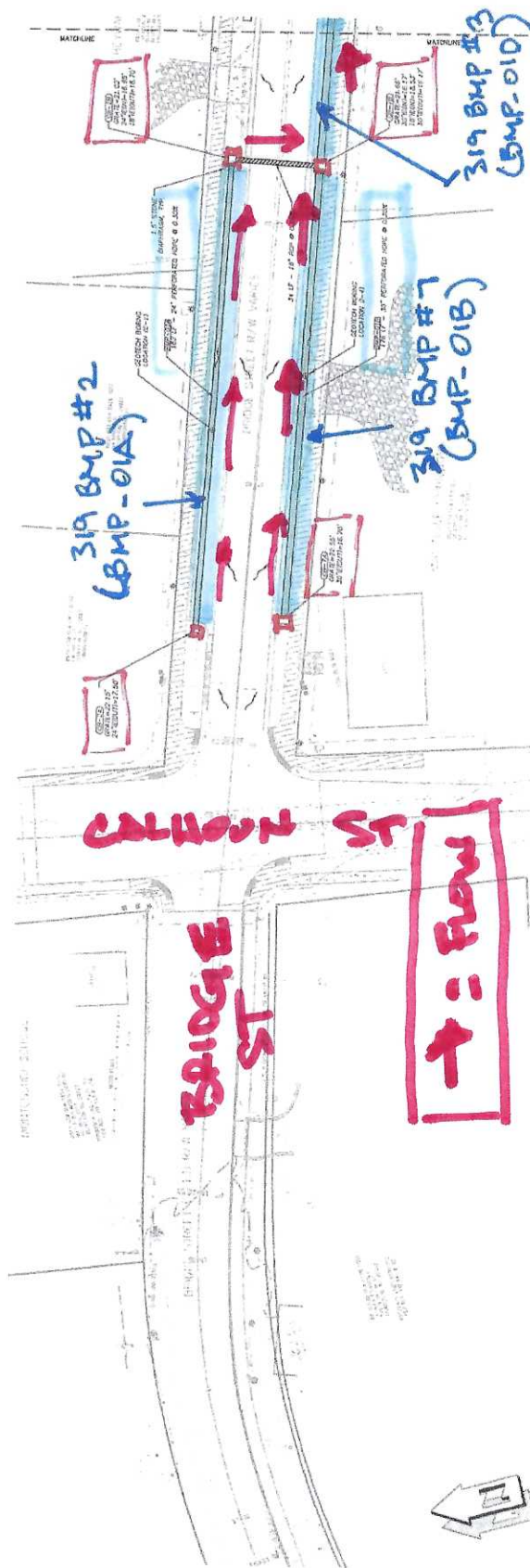
## WORK PLAN UPDATE SCHEMATIC

319 GRANT BMP's

319 GRANT BMP's RELATED STRUCTURES

Flow Name	Flow Direction	Start Elevation	End Elevation	Length (Feet)
Flow 1	Flow 1	21.000	20.750	15.0
Flow 2	Flow 2	20.750	20.500	15.0
Flow 3	Flow 3	20.500	20.250	15.0
Flow 4	Flow 4	20.250	20.000	15.0
Flow 5	Flow 5	20.000	19.750	15.0
Flow 6	Flow 6	19.750	19.500	15.0
Flow 7	Flow 7	19.500	19.250	15.0
Flow 8	Flow 8	19.250	19.000	15.0
Flow 9	Flow 9	19.000	18.750	15.0
Flow 10	Flow 10	18.750	18.500	15.0
Flow 11	Flow 11	18.500	18.250	15.0
Flow 12	Flow 12	18.250	18.000	15.0
Flow 13	Flow 13	18.000	17.750	15.0
Flow 14	Flow 14	17.750	17.500	15.0
Flow 15	Flow 15	17.500	17.250	15.0
Flow 16	Flow 16	17.250	17.000	15.0
Flow 17	Flow 17	17.000	16.750	15.0
Flow 18	Flow 18	16.750	16.500	15.0
Flow 19	Flow 19	16.500	16.250	15.0
Flow 20	Flow 20	16.250	16.000	15.0
Flow 21	Flow 21	16.000	15.750	15.0
Flow 22	Flow 22	15.750	15.500	15.0
Flow 23	Flow 23	15.500	15.250	15.0
Flow 24	Flow 24	15.250	15.000	15.0
Flow 25	Flow 25	15.000	14.750	15.0
Flow 26	Flow 26	14.750	14.500	15.0
Flow 27	Flow 27	14.500	14.250	15.0
Flow 28	Flow 28	14.250	14.000	15.0
Flow 29	Flow 29	14.000	13.750	15.0
Flow 30	Flow 30	13.750	13.500	15.0
Flow 31	Flow 31	13.500	13.250	15.0
Flow 32	Flow 32	13.250	13.000	15.0
Flow 33	Flow 33	13.000	12.750	15.0
Flow 34	Flow 34	12.750	12.500	15.0
Flow 35	Flow 35	12.500	12.250	15.0
Flow 36	Flow 36	12.250	12.000	15.0
Flow 37	Flow 37	12.000	11.750	15.0
Flow 38	Flow 38	11.750	11.500	15.0
Flow 39	Flow 39	11.500	11.250	15.0
Flow 40	Flow 40	11.250	11.000	15.0
Flow 41	Flow 41	11.000	10.750	15.0
Flow 42	Flow 42	10.750	10.500	15.0
Flow 43	Flow 43	10.500	10.250	15.0
Flow 44	Flow 44	10.250	10.000	15.0
Flow 45	Flow 45	10.000	9.750	15.0
Flow 46	Flow 46	9.750	9.500	15.0
Flow 47	Flow 47	9.500	9.250	15.0
Flow 48	Flow 48	9.250	9.000	15.0
Flow 49	Flow 49	9.000	8.750	15.0
Flow 50	Flow 50	8.750	8.500	15.0
Flow 51	Flow 51	8.500	8.250	15.0
Flow 52	Flow 52	8.250	8.000	15.0
Flow 53	Flow 53	8.000	7.750	15.0
Flow 54	Flow 54	7.750	7.500	15.0
Flow 55	Flow 55	7.500	7.250	15.0
Flow 56	Flow 56	7.250	7.000	15.0
Flow 57	Flow 57	7.000	6.750	15.0
Flow 58	Flow 58	6.750	6.500	15.0
Flow 59	Flow 59	6.500	6.250	15.0
Flow 60	Flow 60	6.250	6.000	15.0
Flow 61	Flow 61	6.000	5.750	15.0
Flow 62	Flow 62	5.750	5.500	15.0
Flow 63	Flow 63	5.500	5.250	15.0
Flow 64	Flow 64	5.250	5.000	15.0
Flow 65	Flow 65	5.000	4.750	15.0
Flow 66	Flow 66	4.750	4.500	15.0
Flow 67	Flow 67	4.500	4.250	15.0
Flow 68	Flow 68	4.250	4.000	15.0
Flow 69	Flow 69	4.000	3.750	15.0
Flow 70	Flow 70	3.750	3.500	15.0
Flow 71	Flow 71	3.500	3.250	15.0
Flow 72	Flow 72	3.250	3.000	15.0
Flow 73	Flow 73	3.000	2.750	15.0
Flow 74	Flow 74	2.750	2.500	15.0
Flow 75	Flow 75	2.500	2.250	15.0
Flow 76	Flow 76	2.250	2.000	15.0
Flow 77	Flow 77	2.000	1.750	15.0
Flow 78	Flow 78	1.750	1.500	15.0
Flow 79	Flow 79	1.500	1.250	15.0
Flow 80	Flow 80	1.250	1.000	15.0
Flow 81	Flow 81	1.000	0.750	15.0
Flow 82	Flow 82	0.750	0.500	15.0
Flow 83	Flow 83	0.500	0.250	15.0
Flow 84	Flow 84	0.250	0.000	15.0
Flow 85	Flow 85	0.000	-0.250	15.0
Flow 86	Flow 86	-0.250	-0.500	15.0
Flow 87	Flow 87	-0.500	-0.750	15.0
Flow 88	Flow 88	-0.750	-1.000	15.0
Flow 89	Flow 89	-1.000	-1.250	15.0
Flow 90	Flow 90	-1.250	-1.500	15.0
Flow 91	Flow 91	-1.500	-1.750	15.0
Flow 92	Flow 92	-1.750	-2.000	15.0
Flow 93	Flow 93	-2.000	-2.250	15.0
Flow 94	Flow 94	-2.250	-2.500	15.0
Flow 95	Flow 95	-2.500	-2.750	15.0
Flow 96	Flow 96	-2.750	-3.000	15.0
Flow 97	Flow 97	-3.000	-3.250	15.0
Flow 98	Flow 98	-3.250	-3.500	15.0
Flow 99	Flow 99	-3.500	-3.750	15.0
Flow 100	Flow 100	-3.750	-4.000	15.0

Flow Name	Flow Direction	Start Elevation	End Elevation	Length (Feet)
Flow 101	Flow 101	21.000	20.750	15.0
Flow 102	Flow 102	20.750	20.500	15.0
Flow 103	Flow 103	20.500	20.250	15.0
Flow 104	Flow 104	20.250	20.000	15.0
Flow 105	Flow 105	20.000	19.750	15.0
Flow 106	Flow 106	19.750	19.500	15.0
Flow 107	Flow 107	19.500	19.250	15.0
Flow 108	Flow 108	19.250	19.000	15.0
Flow 109	Flow 109	19.000	18.750	15.0
Flow 110	Flow 110	18.750	18.500	15.0
Flow 111	Flow 111	18.500	18.250	15.0
Flow 112	Flow 112	18.250	18.000	15.0
Flow 113	Flow 113	18.000	17.750	15.0
Flow 114	Flow 114	17.750	17.500	15.0
Flow 115	Flow 115	17.500	17.250	15.0
Flow 116	Flow 116	17.250	17.000	15.0
Flow 117	Flow 117	17.000	16.750	15.0
Flow 118	Flow 118	16.750	16.500	15.0
Flow 119	Flow 119	16.500	16.250	15.0
Flow 120	Flow 120	16.250	16.000	15.0
Flow 121	Flow 121	16.000	15.750	15.0
Flow 122	Flow 122	15.750	15.500	15.0
Flow 123	Flow 123	15.500	15.250	15.0
Flow 124	Flow 124	15.250	15.000	15.0
Flow 125	Flow 125	15.000	14.750	15.0
Flow 126	Flow 126	14.750	14.500	15.0
Flow 127	Flow 127	14.500	14.250	15.0
Flow 128	Flow 128	14.250	14.000	15.0
Flow 129	Flow 129	14.000	13.750	15.0
Flow 130	Flow 130	13.750	13.500	15.0
Flow 131	Flow 131	13.500	13.250	15.0
Flow 132	Flow 132	13.250	13.000	15.0
Flow 133	Flow 133	13.000	12.750	15.0
Flow 134	Flow 134	12.750	12.500	15.0
Flow 135	Flow 135	12.500	12.250	15.0
Flow 136	Flow 136	12.250	12.000	15.0
Flow 137	Flow 137	12.000	11.750	15.0
Flow 138	Flow 138	11.750	11.500	15.0
Flow 139	Flow 139	11.500	11.250	15.0
Flow 140	Flow 140	11.250	11.000	15.0
Flow 141	Flow 141	11.000	10.750	15.0
Flow 142	Flow 142	10.750	10.500	15.0
Flow 143	Flow 143	10.500	10.250	15.0
Flow 144	Flow 144	10.250	10.000	15.0
Flow 145	Flow 145	10.000	9.750	15.0
Flow 146	Flow 146	9.750	9.500	15.0
Flow 147	Flow 147	9.500	9.250	15.0
Flow 148	Flow 148	9.250	9.000	15.0
Flow 149	Flow 149	9.000	8.750	15.0
Flow 150	Flow 150	8.750	8.500	15.0
Flow 151	Flow 151	8.500	8.250	15.0
Flow 152	Flow 152	8.250	8.000	15.0
Flow 153	Flow 153	8.000	7.750	15.0
Flow 154	Flow 154	7.750	7.500	15.0
Flow 155	Flow 155	7.500	7.250	15.0
Flow 156	Flow 156	7.250	7.000	15.0
Flow 157	Flow 157	7.000	6.750	15.0
Flow 158	Flow 158	6.750	6.500	15.0
Flow 159	Flow 159	6.500	6.250	15.0
Flow 160	Flow 160	6.250	6.000	15.0
Flow 161	Flow 161	6.000	5.750	15.0
Flow 162	Flow 162	5.750	5.500	15.0
Flow 163	Flow 163	5.500	5.250	15.0
Flow 164	Flow 164	5.250	5.000	15.0
Flow 165	Flow 165	5.000	4.750	15.0
Flow 166	Flow 166	4.750	4.500	15.0
Flow 167	Flow 167	4.500	4.250	15.0
Flow 168	Flow 168	4.250	4.000	15.0
Flow 169	Flow 169	4.000	3.750	15.0
Flow 170	Flow 170	3.750	3.500	15.0
Flow 171	Flow 171	3.500	3.250	15.0
Flow 172	Flow 172	3.250	3.000	15.0
Flow 173	Flow 173	3.000	2.750	15.0
Flow 174	Flow 174	2.750	2.500	15.0
Flow 175	Flow 175	2.500	2.250	15.0
Flow 176	Flow 176	2.250	2.000	15.0
Flow 177	Flow 177	2.000	1.750	15.0
Flow 178	Flow 178	1.750	1.500	15.0
Flow 179	Flow 179	1.500	1.250	15.0
Flow 180	Flow 180	1.250	1.000	15.0
Flow 181	Flow 181	1.000	0.750	15.0
Flow 182	Flow 182	0.750	0.500	15.0
Flow 183	Flow 183	0.500	0.250	15.0
Flow 184	Flow 184	0.250	0.000	15.0
Flow 185	Flow 185	0.000	-0.250	15.0
Flow 186	Flow 186	-0.250	-0.500	15.0
Flow 187	Flow 187	-0.500	-0.750	15.0
Flow 188	Flow 188	-0.750	-1.000	15.0
Flow 189	Flow 189	-1.000	-1.250	15.0
Flow 190	Flow 190	-1.250	-1.500	15.0
Flow 191	Flow 191	-1.500	-1.750	15.0
Flow 192	Flow 192	-1.750	-2.000	15.0
Flow 193	Flow 193	-2.000	-2.250	15.0
Flow 194	Flow 194	-2.250	-2.500	15.0
Flow 195	Flow 195	-2.500	-2.750	15.0
Flow 196	Flow 196	-2.750	-3.000	15.0
Flow 197	Flow 197	-3.000	-3.250	15.0
Flow 198	Flow 198	-3.250	-3.500	15.0
Flow 199	Flow 199	-3.500	-3.750	15.0
Flow 200	Flow 200	-3.750	-4.000	15.0







DATE: 07/20/2022	BY: [Signature]
CHECKED: 07/20/2022	BY: [Signature]
APPROVED: 07/20/2022	BY: [Signature]
SCALE: 1" = 20'	
PROJECT: BRIDGE STREET STREETScape	
SHEET: 1 OF 1	

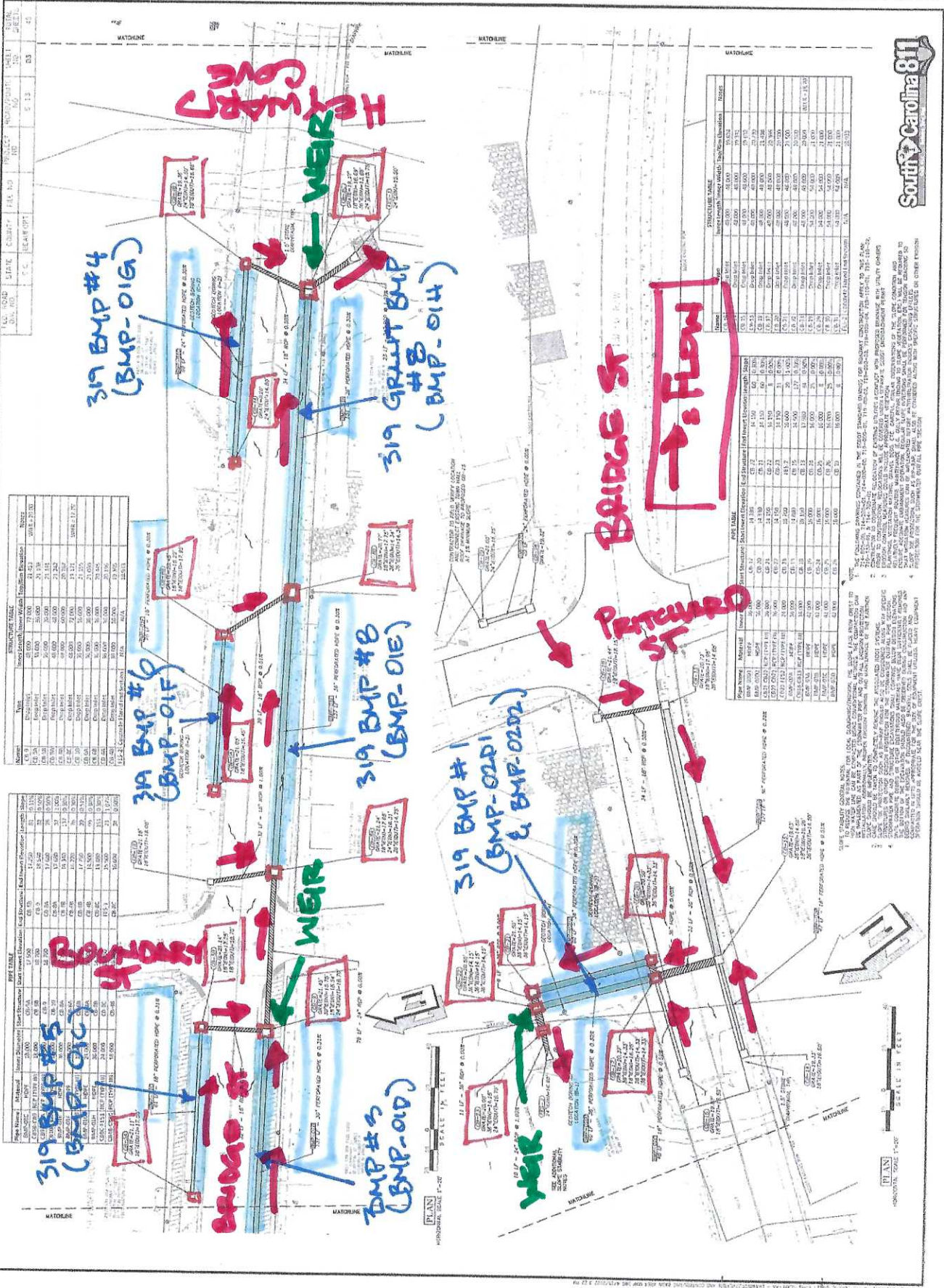


TABLE 1: Stormwater Management Data

Flow Rate (cfs)	Peak Flow (cfs)	Design Flow (cfs)	Structure Size (ft x ft)	Structure Type
1.0	1.0	1.0	10' x 10'	Box Culvert
2.0	2.0	2.0	20' x 10'	Box Culvert
3.0	3.0	3.0	30' x 10'	Box Culvert
4.0	4.0	4.0	40' x 10'	Box Culvert
5.0	5.0	5.0	50' x 10'	Box Culvert
6.0	6.0	6.0	60' x 10'	Box Culvert
7.0	7.0	7.0	70' x 10'	Box Culvert
8.0	8.0	8.0	80' x 10'	Box Culvert
9.0	9.0	9.0	90' x 10'	Box Culvert
10.0	10.0	10.0	100' x 10'	Box Culvert

TABLE 2: Stormwater Management Data

Flow Rate (cfs)	Peak Flow (cfs)	Design Flow (cfs)	Structure Size (ft x ft)	Structure Type
1.0	1.0	1.0	10' x 10'	Box Culvert
2.0	2.0	2.0	20' x 10'	Box Culvert
3.0	3.0	3.0	30' x 10'	Box Culvert
4.0	4.0	4.0	40' x 10'	Box Culvert
5.0	5.0	5.0	50' x 10'	Box Culvert
6.0	6.0	6.0	60' x 10'	Box Culvert
7.0	7.0	7.0	70' x 10'	Box Culvert
8.0	8.0	8.0	80' x 10'	Box Culvert
9.0	9.0	9.0	90' x 10'	Box Culvert
10.0	10.0	10.0	100' x 10'	Box Culvert

TABLE 3: Stormwater Management Data

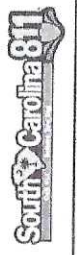
Flow Rate (cfs)	Peak Flow (cfs)	Design Flow (cfs)	Structure Size (ft x ft)	Structure Type
1.0	1.0	1.0	10' x 10'	Box Culvert
2.0	2.0	2.0	20' x 10'	Box Culvert
3.0	3.0	3.0	30' x 10'	Box Culvert
4.0	4.0	4.0	40' x 10'	Box Culvert
5.0	5.0	5.0	50' x 10'	Box Culvert
6.0	6.0	6.0	60' x 10'	Box Culvert
7.0	7.0	7.0	70' x 10'	Box Culvert
8.0	8.0	8.0	80' x 10'	Box Culvert
9.0	9.0	9.0	90' x 10'	Box Culvert
10.0	10.0	10.0	100' x 10'	Box Culvert

TABLE 4: Stormwater Management Data

Flow Rate (cfs)	Peak Flow (cfs)	Design Flow (cfs)	Structure Size (ft x ft)	Structure Type
1.0	1.0	1.0	10' x 10'	Box Culvert
2.0	2.0	2.0	20' x 10'	Box Culvert
3.0	3.0	3.0	30' x 10'	Box Culvert
4.0	4.0	4.0	40' x 10'	Box Culvert
5.0	5.0	5.0	50' x 10'	Box Culvert
6.0	6.0	6.0	60' x 10'	Box Culvert
7.0	7.0	7.0	70' x 10'	Box Culvert
8.0	8.0	8.0	80' x 10'	Box Culvert
9.0	9.0	9.0	90' x 10'	Box Culvert
10.0	10.0	10.0	100' x 10'	Box Culvert

NOTES:

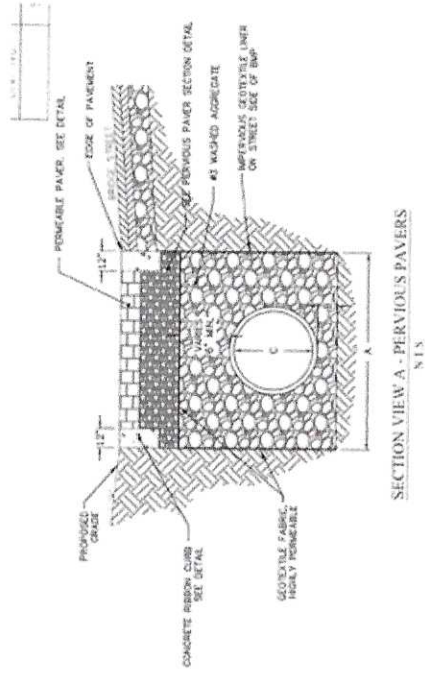
1. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
2. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
3. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
4. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
5. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
6. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
7. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
8. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
9. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.
10. ALL STRUCTURES SHALL BE DESIGNED TO THE 100-YEAR FLOOD PROTECTION STANDARD.





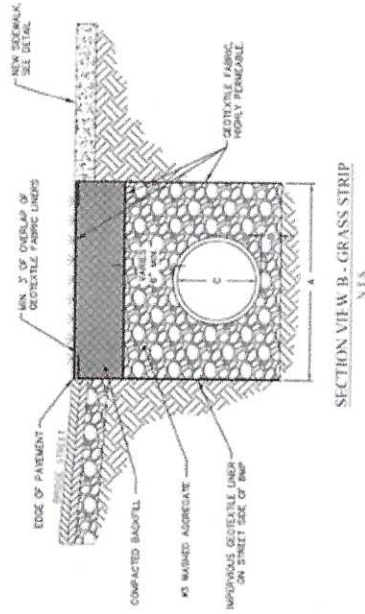
# BMP SUMMARY TABLE

BMP Number	Drainage Basin No. (Plan Set Sheet D1)	Contributing Drainage Area (sf)	CDA Turf Cover (sf)	CDA Impervious Cover (sf)	Target/ Req'd SWrv* (cf)	Available SWrv (cf)	Excess SWrv Available (cf)
BMP-01A	1 & 2	10,545	3,545	7,000	1,137.5	2,196.4	1,058.9
BMP-01B	3 & 4	11,729	3,416	8,313	1,350.9	1,378.0	27.1
BMP-01C	5 & 6	7,440	3,426	4,014	652.3	733.2	80.9
BMP-01D	7	5,892	2,532	3,360	546.0	1,073.0	527.0
BMP-01E	8, 9, 10 & Boundary E & W	61,565	35,792	25,773	4,188.1	1,456.0	(2,732.1)
BMP-01F	11 & 12	4,041	1,892	2,149	349.2	693.2	344.0
BMP-01G	13 & 14	6,509	3,136	3,373	548.1	1,127.8	579.7
BMP-01H	15	4,696	1,521	3,175	515.9	1,602.0	1,086.1
<b>System 01 Sub-total</b>		<b>112,417</b>	<b>55,260</b>	<b>57,157</b>	<b>9,288.0</b>	<b>10,259.6</b>	<b>971.6</b>
BMP-02A	18, 19, 20 & 21	19,552	9,892	9,660	1,569.8	1,353.0	(216.8)
BMP-02B	17	2,037	808	1,229	199.7	202.0	2.3
BMP-02C	16	1,526	638	888	144.3	207.0	62.7
BMP-02D	-	-	-	-	-	1,274.0	1,274.0
<b>System 02 Sub-total</b>	-	<b>23,115</b>	<b>11,338</b>	<b>11,777</b>	<b>1,913.8</b>	<b>3,036.0</b>	<b>1,122.2</b>
BMP-03	22	14,559	4,862	9,697	1,575.8	110.0	(1,465.8)
<b>System 03 Sub-total</b>	-	<b>14,559</b>	<b>4,862</b>	<b>9,697</b>	<b>1,575.8</b>	<b>110.0</b>	<b>(1,465.8)</b>
<b>Project Total</b>	-	<b>150,091</b>	<b>71,460</b>	<b>78,631</b>	<b>12,777.5</b>	<b>13,405.6</b>	<b>628.1</b>



SECTION VIEW A - PERVIOUS PAVERS

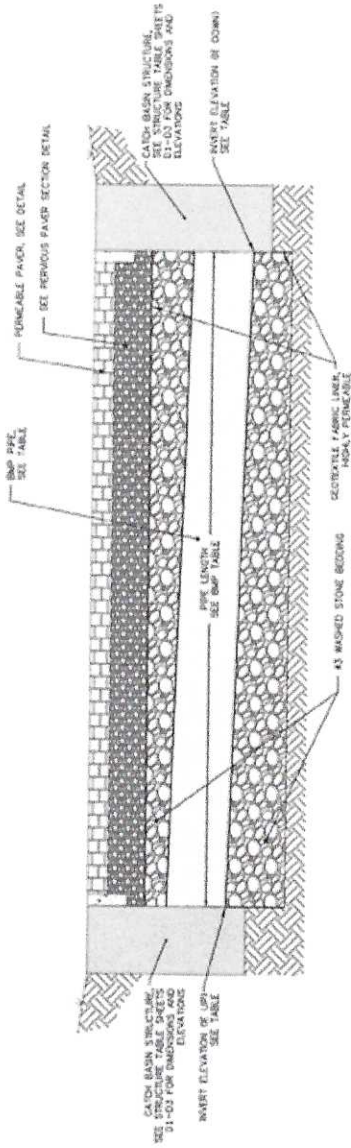
NTS



SECTION VIEW B - GRASS STRIP

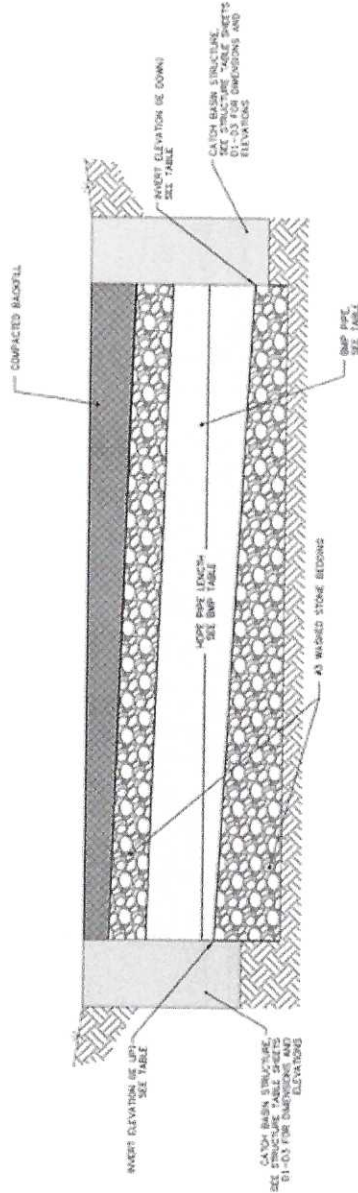
NTS

# BMP DETAILS



SECTION VIEW A - PROFILE

NTS



SECTION VIEW B - PROFILE

NTS



**Bridge Street Streetscape  
SoLoCo Plan Compliance  
Design Compliance/MEP Narrative**

The following is a presentation of the Stormwater objectives for Bridge Street Streetscape project in Bluffton, SC. The project has incorporated SoLoCo Stormwater Design Manual and Ordinance (adopted by The Town of Bluffton on September 14, 2021) plan presentation requirements to serve as a model for future Development Plan Applications required to meet the newly adopted Stormwater requirements.

**Bridge Street Streetscape Stormwater Design Objectives**

The project was not obligated to meet the requirements of the new SoLoCo Stormwater Design Manual and Ordinance due to the time of application submittal and the fact that this is a Town of Bluffton municipal, public project that is reviewed for approval under a separate administrative procedure. However, as part of the Town's Impervious Area Restoration/Stormwater Retrofit Program and acquisition of 319 Grant, the Town implemented Water Quality BMPs within the scope of work for the Bridge Street Streetscape Project.

Most of the work being performed within the project's limits of disturbance includes road surface milling and repaving operations as well as road/impervious surface removal. Pavement restoration is considered maintenance and runoff reduction is not required for the maintenance portion of projects. The impervious area within the limits of disturbance is reduced by approximately 5,775 square feet (0.13 acres). This equates to an overall impervious area reduction of 8% for the contributing drainage area to the three BMP systems discussed below.

The Town's design objective, or Required Stormwater Runoff Volume (SWrv), for the project to be compliant with the 319 Grant was to capture and treat 1.95" of rainfall from the impervious areas within the Contributing Drainage Area (CDA) to each BMP system. The Target/Required SWrv is the volume of stormwater from a site for which the site is required to achieve retention, per the SoLoCo Design Manual.

Three BMP systems are proposed to treat runoff from the contributing drainage area. The BMP systems feature in-series infiltration practices which provide a treatment train. Pervious parking areas receive runoff from the contributing areas, with excess runoff collecting in underground detention systems comprised of perforated pipe fully encompassed in a stone reservoir. As the underground detention system also serves as primary stormwater conveyance to the outfalls, weirs were strategically placed in structures to accommodate the required stormwater retention volume and allow excess flows to pass safely through the system.

Geotechnical explorations were performed to confirm soil type, infiltration rate and groundwater table elevation. This testing confirmed infiltration BMPs are suitable for meeting the Target/Required SWrv and water quality goals of the project.

BMP System 01 collects runoff from the Bridge Street right-of-way (ROW) and adjacent properties between Calhoun Street and the Heyward Cove Bridge, as well as portions of the Boundary Street ROW

and adjacent properties between Green Street & Bridge Street. System 01 outfalls into Heyward Cove. Contributing drainage to this system is comprised of 2.58 acres, approximately 51% impervious cover, with a Target/Required SWrv of 9,288 cubic feet (cf). BMP System 01 provides an available retention volume of 10,259.6 cf.

BMP System 02 collects runoff from the Bridge Street right-of-way (ROW) and adjacent properties between the Heyward Cove Bridge and Pritchard Street, as well as portions of the Pritchard Street ROW and adjacent properties. System 02 outfalls into Heyward Cove. Contributing drainage to this system is comprised of 0.53 acres, approximately 51% impervious cover, with a Target/Required SWrv of 1,913.8 cf. BMP System 02 provides an available retention volume of 3,036 cf. This system was sized to convey flows from a portion of MC Riley Elementary School to provide capacity for future stormwater improvements by others. The approximately 2.29 acres of additional runoff at 70% impervious was excluded from the SWrv calculations provided for the Bridge Street Streetscape project.

BMP System 03 collects runoff from a portion of the Pritchard Street right-of-way (ROW) and Bluffton Town Hall through a roof drain connection. The primary outfall mechanism for System 03 is infiltration, however excess runoff during larger storm events overflows to BMP System 02. Contributing drainage to this system is comprised of 0.33 acres, approximately 67% impervious cover, with a target SWrv of 1,575.8 cf. BMP System 03 provides an available retention volume of 110 cf.

The following table presents a summary of the contributing drainage area to each BMP; the Target/Required SWrv for each system based on the impervious cover in the contributing drainage area; the available SWrv in each system; and the excess or deficit volume available in each system. While not all individual BMPs provide adequate storage for the Target/Required SWrv, the use of treatment trains allows for the SWrv to be retained in the downstream practice. The three BMP systems currently provide an excess treatment volume of 2,461 cubic feet over the Target/Required SWrv. There is enough excess volume in the BMP treatment system to provide additional treatment of 628.1 cubic feet to accommodate future development within the right-of-way areas.



## Definitions

- *Best management practice (BMP)* – Structural or nonstructural practice that minimizes the impact of stormwater runoff on receiving waterbodies and other environmental resources, especially by reducing runoff volume and the pollutant loads carried in that runoff.
- *Contributing drainage Area (CDA)* – Area contributing runoff to a BMP.
- *Impervious cover* – A surface area that has been compacted or covered with a layer of material that impedes or prevents the infiltration of water into the ground, examples include conventional streets, parking lots, rooftops, sidewalks, pathways with compacted sub-base, and any concrete, asphalt, or compacted gravel surface and other similar surface.
- *Infiltration* – The passage or movement of surface water through the soil profile.
- *Retention* – Keeping a volume of stormwater runoff on site through infiltration, evapotranspiration, storage for non-potable use, or some combination of these.
- *Retention capacity* – The volume of stormwater that can be retained by a stormwater BMP or land cover.
- *Runoff* – The portion of precipitation (including snow-melt) that travels over the land surface, and also from rooftops, either as sheetflow or as channel flow, in small trickles and streams, into the main water courses.
- *Stormwater retention volume (SWRV)* – Volume of stormwater from a site for which the site is required to achieve retention.

Source: Center for Watershed Protection (2020). Southern Lowcountry Stormwater Design Manual.