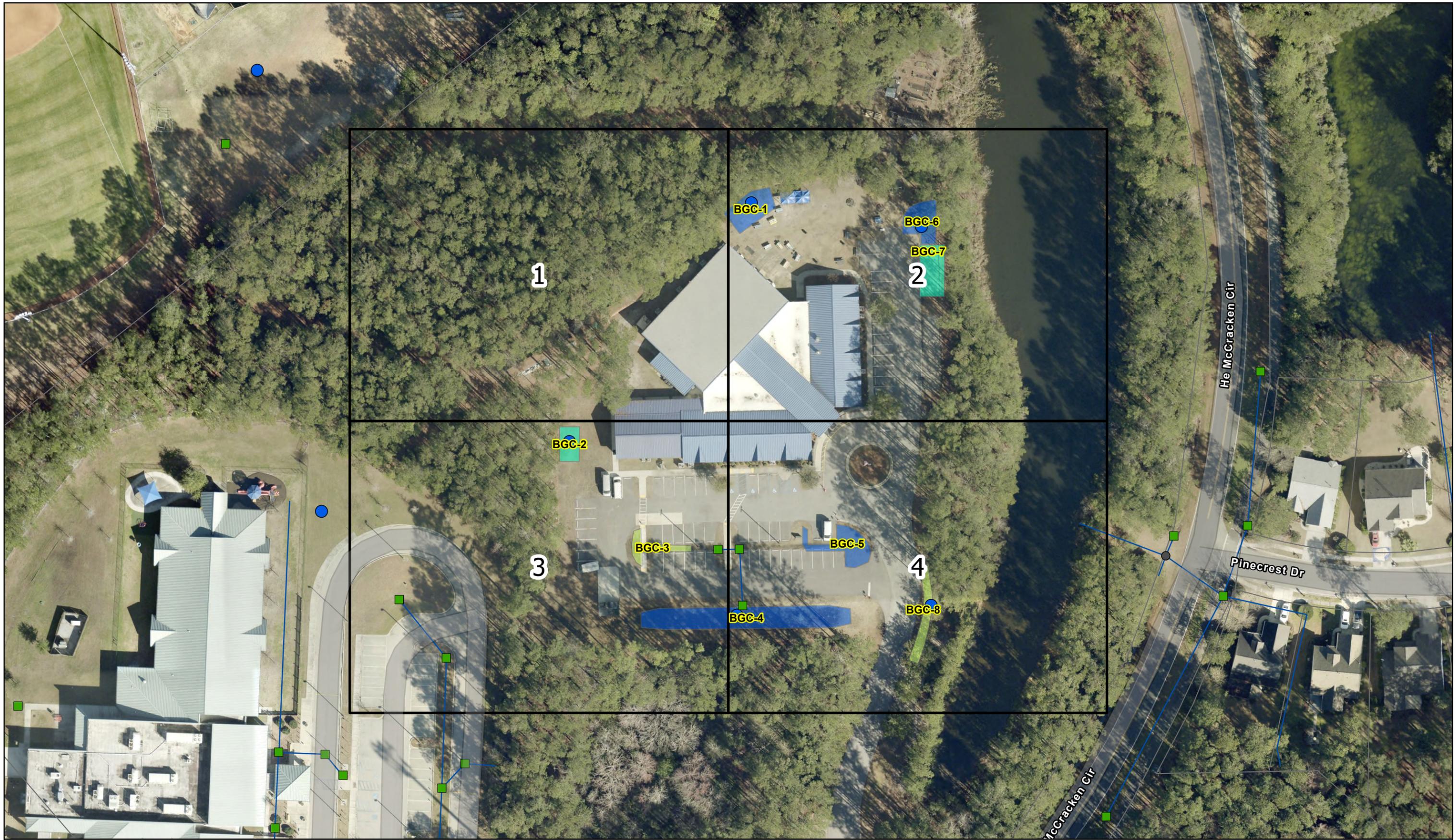


Attachment 2.  
MRWAP IRP Maps and Summary Tables

Boys & Girls Club																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	Credit	ft	in	
BGC-1	Bioretention	Medium	39	Gym Roof	0.18	1,351	\$42,000	\$31.09	High	1.18	950	41	22	2	1	1	75%	160	6	
BGC-2	Infiltration Chamber	Low	26	Western Roof	0.09	618	\$30,000	\$48.58	Mod-Low	1.98	500	30	17		3		75%	100	30	4 rows of 25'
BGC-3	Infiltration Trench	Medium	28	Front Parking Lot	0.22	574	\$20,000	\$34.86	Mod-Low	0.77	450	51	28		3	0.5	75%	100	6	
BGC-4	Bioretention	Medium	31		0.27	3,279	\$107,000	\$32.63	Moderate	0.77	3,300	180	19	1.5	0.5	0.75	75%	250	8	
BGC-5	Bioretention	Medium	28		0.13	1,034	\$42,000	\$40.61	Moderate	0.77	1,000	57	36	2	1	0.5	75%	130	6	
BGC-6	Bioretention	High	40	Eastern Parking Lot/Roof	0.33	1,211	\$36,000	\$29.72	High	1.53	850	37	28	2	1	1	75%	100	6	
BGC-7	Infiltration Chamber	Medium	29	Eastern Parking Row	0.02	1,283	\$58,000	\$45.22	Moderate	1.53	950	44	21		3		75%	200	30	5 rows of 40'
BGC-8	Infiltration Trench	Medium	30	Driveway	0.12	903	\$29,000	\$32.11	Mod-Low	0.82	650	85	7		3	0.75	75%	120	6	
<b>Total</b>					<b>1.35</b>	<b>10,253</b>	<b>\$364,000</b>				<b>8,650</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

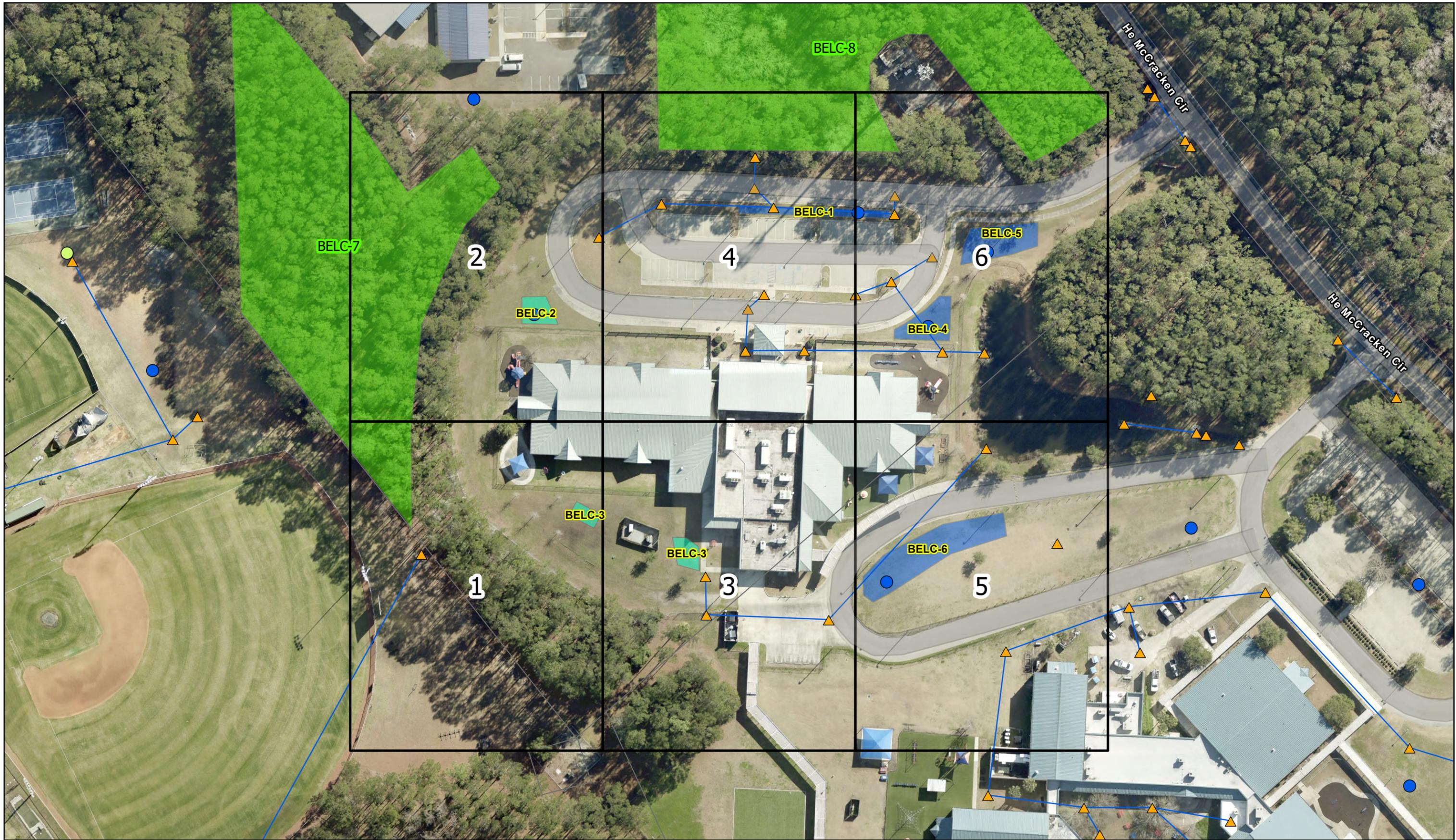
Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BGC-1	Bioretention	Route gymnasium roof drains to open space, adjacent to edge of wooded area.
BGC-2	Infiltration Chamber	Route roof drains to infiltration chamber, and add gutter on front side of building to route additional flow here too
BGC-3	Infiltration Trench	Utilize existing storm inlet as overflow structure and route IWS here; convert landscape island into an infiltration trench due to narrower width
BGC-4	Bioretention	Retrofit existing detention pond with gravel layer and in IWS underdrain system that routes outflow to the pond on eastern edge of property
BGC-5	Bioretention	Utilize existing storm inlet as overflow structure and route IWS here; convert landscape island into bioretention
BGC-6	Bioretention	Retrofit low point into bioretention and add earthen berm to route overflow into adjacent pond
BGC-7	Infiltration Chamber	For gravel parking area that is adjacent to BGC-6, add an infiltration chamber that is interconnected under half of the parking row for additional storage
BGC-8	Infiltration Trench	Construct an infiltration trench along eastern edge of driveway and add an IWS underdrain that is connected to adjacent pond



Bluffton Early Learning center																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRV	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	Credit	ft	in	
BELC-1	Bioretention	Low	24	Driveway, East	0.20	1,528	\$51,000	\$33.37	Mod-Low	0.04	1,200	149	8	1.5	1.5	0.75	75%	140	6	
BELC-2	Infil. Chamber	Low	24	Roof, Northeast	0.22	1,467	\$61,000	\$41.59	Mod-Low	0.20	825	31	27		4		75%	200	30	8 rows of 25'
BELC-3	Infil. Chamber	Low	24	Roof, Northwest	0.28	1,914	\$78,000	\$40.75	Mod-Low	0.20	1,075	30 / 27	25 / 15		4		75%	250	30	4 rows of 25' & 6 rows of 25'
BELC-4	Bioretention	Medium	31	Roof, Southeast	0.23	1,806	\$57,000	\$31.56	Moderate	0.06	1,600	55	44	1.5	1	0.75	75%	80	6	
BELC-5	Bioretention	Low	26	Parking Lot	0.43	2,516	\$87,000	\$34.58	Mod-Low	0.01	2,200	76	31	1.5	1	0.75	75%	160	6	
BELC-6	Bioretention	High	54	Roof, Southwest; Rear Parking Lot	0.87	6,592	\$198,000	\$30.04	High	5.80	4,650	157	32	2	1	1	75%	300	8	
BELC-7	Conservation Area	High		North of School	0.00	t.b.d			High		1.52-ac									
BELC-8	Conservation Area	High		East of School	0.00	t.b.d			High		1.97-ac									
<b>Total</b>					<b>2.23</b>	<b>15,824</b>	<b>\$532,000</b>				<b>11,550</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BELC-1	Bioretention	Route runoff from driveway into grassed median through trench drain or pavement regrading or moving speed bumps, connect to nearby structure with IWS
BELC-2	Infil. Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured outside of playground fence
BELC-3	Infil. Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured outside of playground fence, two smaller structures likely needed due to location of utilities
BELC-4	Bioretention	Adjust roof drains to discharge at ground surface and flow into bioretention cell, utilize existing grate inlet as overflow structure and tie-in with IWS
BELC-5	Bioretention	Regrade driveway section to force overland flow into grassed area immediately to the south of drop inlet, create a new discharge point into pond with IWS and a dome overflow structure
BELC-6	Bioretention	Route roof drains to discharge into large bioretention cell; adjust grading near parking lot grate inlet to allow for overland flow into bioretention or install a new storm inlet structure with shallower pipe to discharge closer to the surface
BELC-7	Conservation Area	Proposed Conservation Area for 1.52 acre (66,000 SF) wooded area
BELC-8	Conservation Area	Proposed Conservation Area for 1.97 acre (86,000 SF) wooded area



Bluffton Early Learning Center

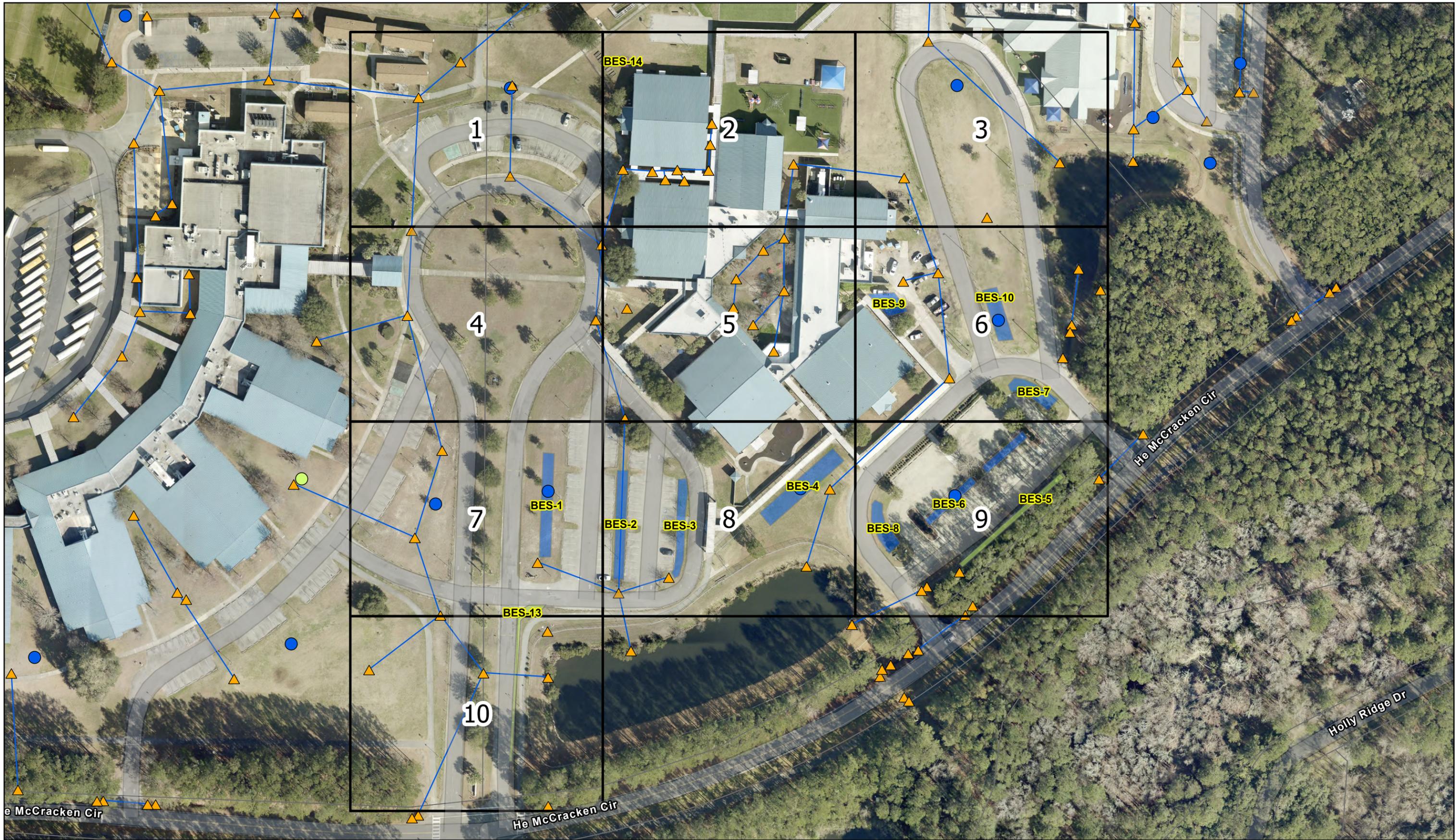


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Bluffton Elementary School																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRV	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	ft	Credit	ft	in
BES-1	Bioretention	High	41	Front Parking Lot Median	0.30	2,766	\$80,000	\$28.93	High	0.52	1,950	133	14	2	1	1	75%	120	6	
BES-2	Bioretention	High	41		0.34	2,681	\$78,000	\$29.09	High	0.52	1,900	140	13	2	1	1	75%	120	6	
BES-3	Bioretention	High	41		0.25	1,953	\$58,000	\$29.69	High	0.52	1,400	125	11	2	1	1	75%	120	6	
BES-4	Bioretention	Medium	35	Southern Playground / Roof	0.52	3,974	\$113,000	\$28.44	Moderate	0.06	2,800	126	22	2	1	1	75%	120	8	
BES-5	Infil. Trench	Medium	39	Gravel Parking Lot	0.23	1,729	\$52,000	\$30.08	Moderate	1.76	1,200	174	7		3	0.75	75%	180	6	
BES-6	Bioretention	Medium	36		0.25	1,945	\$66,000	\$33.93	Moderate	1.76	1,600	150	10	2	1	0.75	75%	160	6	
BES-7	Bioretention	High	43	Southern Driveway	0.22	1,629	\$47,000	\$28.86	High	1.76	1,150	64	18	2	1	1	75%	60	6	
BES-8	Bioretention	High	43		0.22	1,629	\$47,000	\$28.86	High	1.76	1,150	67	16	2	1	1	75%	60	6	
BES-9	Bioretention	Low	27	Eastern Building	0.18	1,335	\$38,000	\$28.46	Low	0.05	950	35	26	2	1	1	75%	40	6	
BES-10	Bioretention	Medium	38	Loop Between BELC/BES	0.22	1,714	\$47,000	\$27.43	High	0.05	1,300	68	19	1.5	1	1	75%	70	6	
BES-13	Infil. Trench	High	40	Driveway Entrance	0.17	1,335	\$40,000	\$29.95	High	0.52	1,150	220	5		2	0.75	0.75	180	6	
BES-14	Cistern	High		NW Corner of Building	0.06	t.b.d			High											
<b>Total</b>					<b>2.95</b>	<b>22,690</b>	<b>\$666,000</b>				<b>16,550</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BES-1	Bioretention	Retrofit bioretention cell in grassed area between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet
BES-2	Bioretention	Retrofit bioretention cell in grassed area between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet
BES-3	Bioretention	Retrofit bioretention cell in grassed area between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet
BES-4	Bioretention	Route roof drains through a combination of disconnection and shallow pipes to grassed area south of sidewalk, utilize nearby storm inlet for outflow
BES-5	Infil. Trench	Install infiltration trench on edge of parking lot to treat southern half of lot, construct a weir or berm on downstream end to discharge overflow into existing swale and storm inlet
BES-6	Bioretention	Retrofit bioretention cell in grassed area between parking rows to treat northern half of parking lot, allow overflow to sheetflow towards BES-5
BES-7	Bioretention	Retrofit bioretention cell in grassed area between driveway and parking lot to intercept runoff before entering existing storm inlet
BES-8	Bioretention	Retrofit bioretention cell in grassed area between driveway and parking lot to intercept runoff before entering existing storm inlet
BES-9	Bioretention	Route roof drains to grassed area next to driveway to intercept runoff, utilize nearby storm inlet for outflow
BES-10	Bioretention	Route runoff into grassed area adjacent to driveway to intercept runoff and create a berm to discharge overflow towards the pond
BES-13	Infil. Trench	Construct an infiltration trench along eastern edge of driveway and add an IWS underdrain that is connected to adjacent pond
BES-14	Cistern	Connect up to two downspouts to route 2,400 SF of rooftop for capture and reuse for adjacent raised beds/gardens



# Bluffton Elementary School

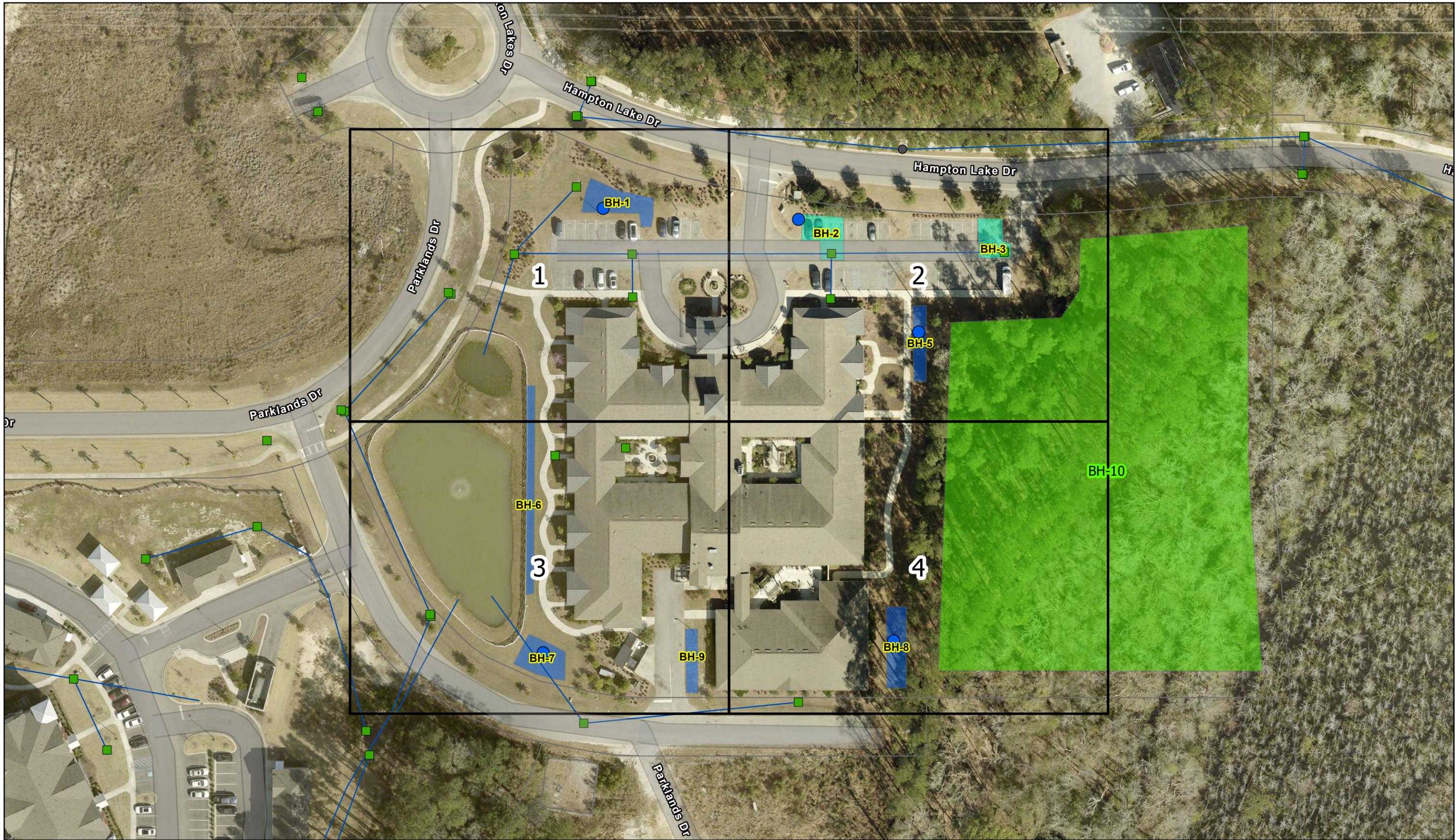


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Benton House																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRv	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRv												
BH-1	Bioretention	Low	25	Front Parking Lot	0.25	1,891	\$65,000	\$34.37	Moderate	1.03	1,350	61	22	2	1	1	75%	80	6	
BH-2	Infiltration Chamber	Low	17		0.22	1,482	\$77,000	\$51.96	Mod-Low	0.50	1,100	38	35		3		75%	200	30	4 rows of 35' & 3 rows of 20'
BH-3	Infiltration Chamber	Low	14		0.17	1,127	\$59,000	\$52.35	Mod-Low	0.36	850	34	28		3		75%	150	30	5 rows of 30'
BH-5	Bioretention	Low	20	Eastern Roof	0.14	1,057	\$34,000	\$32.15	Mod-Low	0.36	750	65	11	2	1	1	75%	140	6	
BH-6	Bioretention	Low	15	Western Roof	0.20	1,505	\$62,000	\$41.19	Mod-Low	0.39	1,250	180	7	2	1	0.75	75%	220	6	
BH-7	Bioretention	Low	21	Southern Roof	0.21	1,598	\$47,000	\$29.42	Mod-Low	0.39	1,150	40	28	2	1	1	75%	70	6	
BH-8	Bioretention	Low	21	Building Addition (S)	0.22	1,652	\$52,000	\$31.48	Mod-Low	0.25	1,200	70	17	2	1	1	75%	150	6	
BH-9	Bioretention	Low	19	Back Driveway	0.11	803	\$26,000	\$32.39	Mod-Low	0.39	600	55	11	2	1	1	75%	65	6	
BH-10	Conservation Area	High		East of Site	0.00	t.b.d			High		2.07-ac									
<b>Total</b>					<b>1.51</b>	<b>11,115</b>	<b>\$422,000</b>				<b>8,250</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BH-1	Bioretention	Route runoff from parking lot into grassed area through trench drain or regrading and making landscape island a swale; utilize storm inlet in grassed area as overflow structure and tie-in for IWS; tie-in vegetation with landscaped area
BH-2	Infiltration Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
BH-3	Infiltration Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
BH-5	Bioretention	Disconnect downspouts to allow for overland flow into bioretention cell, route IWS into nearby storm structure
BH-6	Bioretention	Disconnect downspouts to allow for overland flow into bioretention cell, route IWS into adjacent pond
BH-7	Bioretention	Reroute roof drains into bioretention cell, route IWS into adjacent pond
BH-8	Bioretention	Reroute roof drains into bioretention cell, route IWS into nearby storm structure
BH-9	Bioretention	Reroute roof drains and driveway runoff into bioretention cell, route IWS into nearby storm structure
BH-10	Conservation Area	Proposed Conservation Area for 2.07 acre (90,000 SF) wooded area



Bluffton High School																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRV	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV												
BHS-1	Bioretention	High	50	Front Parking Lot	0.29	2,123	\$52,000	\$24.50	Moderate	7.21	1,150	60	21	2	1	1	100%			
BHS-2/-3	Bioretention	High	50	Front Parking Lot/ Entrance	0.37	2,678	\$56,000	\$20.91	Moderate	7.21	1,450	58	22	2	1	1	100%			
BHS-4	Bioretention	High	46	Entrance	0.12	865	\$19,000	\$21.98	Moderate	2.11	500	35	14	2	1	1	100%			
BHS-5	Bioretention	High	54	Front Parking Lot	0.72	5,249	\$122,000	\$23.24	High	2.08	2,800	240	12	2	1	1	100%			
BHS-6	Bioretention	High	47		0.09	710	\$21,000	\$29.57	High	2.08	500	52	10	2	1	1	75%	50	6	
BHS-7	Infil. Chamber	High	42	Rooftop	0.31	2,069	\$79,000	\$38.19	Mod-Low	5.21	1,150	65	18		4		75%	240	30	4 rows of 60'
BHS-8	Bioretention	High	48		0.58	4,268	\$91,000	\$21.32	Moderate	2.11	2,250	54	44	2	1	1	100%	120	6	
BHS-9	Bioretention	High	46		0.20	1,467	\$33,000	\$22.50	Moderate	2.11	800	44	20	2	1	1	100%	50	6	
BHS-11	Infil. Chamber	High	41		0.81	5,449	\$213,000	\$39.09	Low	2.11	3,050	121	28		4		75%	660	30	6 rows of 110'
BHS-12A	Bioretention	High	42	Rear Parking Lot	0.37	2,810	\$81,000	\$28.83	Mod-Low	2.11	2,000	75	35	2	1	1	75%	110	6	
BHS-12B	Perm. Pavement	Medium	34		0.14	1,662	\$149,000	\$89.67	Mod-Low	2.11	6,200	305	20		0.67		100%			
BHS-13	Infil. Trench	High	50	Bus Entrance	0.15	1,142	\$21,000		High	2.08	1,000	389	6		1	0.75	100%			
BHS-14	Bioretention	High	49	Tennis Courts	0.40	3,018	\$90,000		High	2.08	2,150	122	18	2	1	1	75%	200	6	
BHS-15	Bioretention	High	41		0.76	5,696	\$161,000	\$28.26	High	0.11	4,000	101	48	2	1	1	75%	180	8	
BHS-16	Infil. Chamber	Medium	37	Front Parking Lot Islands	0.23	1,544	\$66,000	\$42.75	Mod-Low	2.11	875	100	9		3		100%	200	30	2 rows of 100'
BHS-17	Infil. Chamber	High	42		0.27	1,806	\$69,000	\$38.20	Mod-Low	7.21	1,000	108	9		3		100%	200	30	2 rows of 100'
BHS-18	Infil. Chamber	High	42		0.27	1,806	\$69,000	\$38.20	Mod-Low	7.21	1,000	108	10		3		100%	200	30	2 rows of 100'
BHS-19	Infil. Chamber	High	42		0.26	1,760	\$69,000	\$39.21	Mod-Low	7.21	1,000	102	10		3		100%	200	30	2 rows of 100'
BHS-20A	Conservation Area	High		East of Tennis Courts	0.00	t.b.d			High		1.65-ac									
BHS-20B	Conservation Area	High			0.00	t.b.d			High		2.04-ac									
BHS-21	Conservation Area	High		Bus Circle	0.00	t.b.d			High		0.80-ac									
BHS-22	Conservation Area	High		South of Football	0.00	t.b.d			High		1.54-ac									
BHS-23	Conservation Area	High		NE Corner of Property	0.00	t.b.d			High		2.41-ac									
<b>Total</b>					<b>6.33</b>	<b>46,122</b>	<b>\$1,461,000</b>				<b>32,875</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

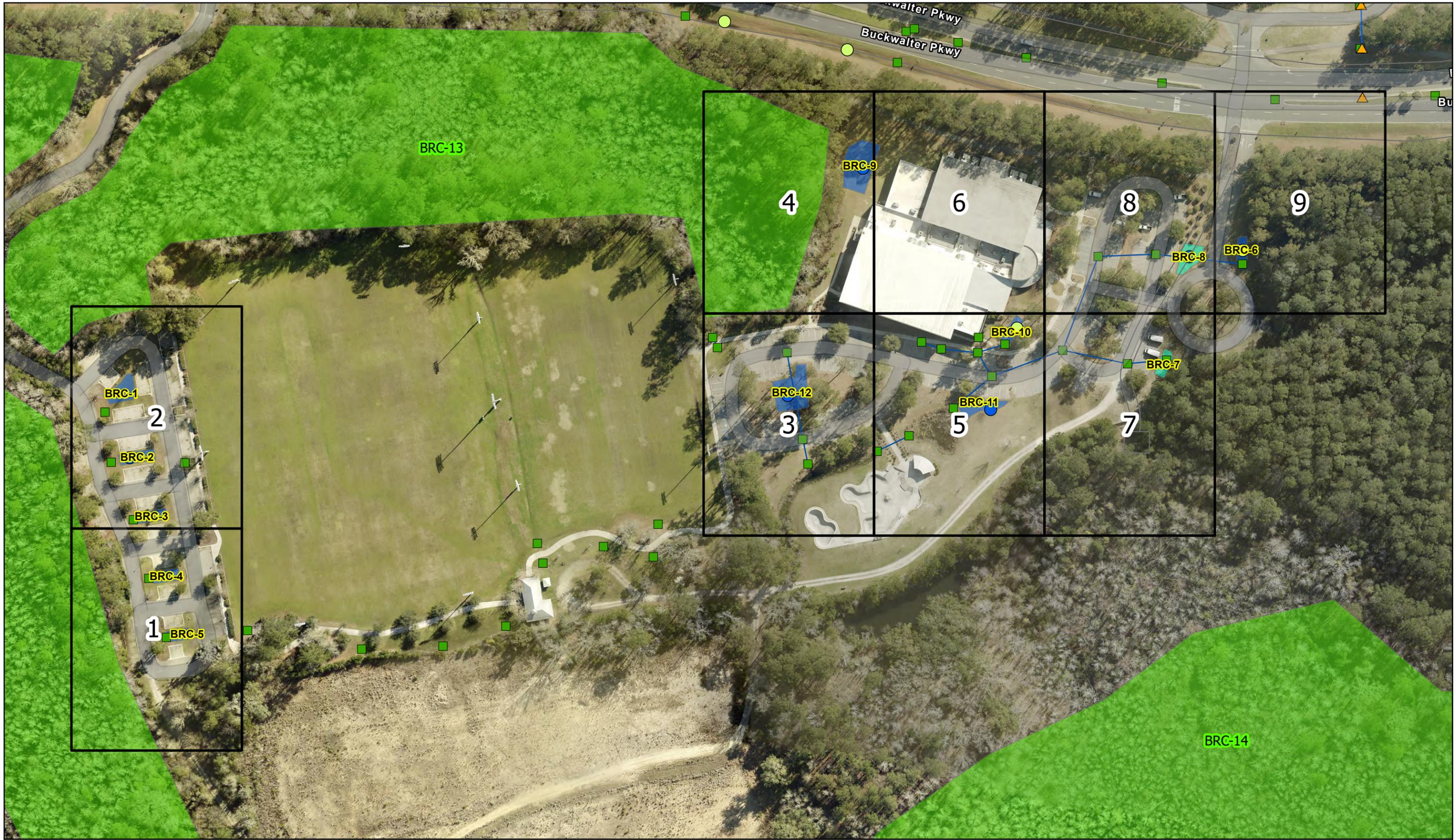
Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BHS-1	Bioretention	Route runoff from parking lot storm inlet into grassed area through trench drain or regrading pavement; add new dome structure to route overflow back to nearby/original storm structure, no underdrain
BHS-2/-3	Bioretention	Add curb cut/flume adjacent to storm inlet to route runoff to bioretention cell behind curb and utilize existing structure for overflow connection, no underdrain
BHS-4	Bioretention	Add curb cut/flume adjacent to storm inlet to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection, no underdrain
BHS-5	Bioretention	Route runoff from parking lot storm inlets into grassed area through trench drain or regrading pavement; add new dome structure to route overflow back to nearby/original storm structure, no underdrain
BHS-6	Bioretention	Add curb cut/flume adjacent to storm inlet to route runoff to linear ROW bioretention cell and add earthen berm to discharge to adjacent pond
BHS-7	Infil. Chamber	Route downspout connection to infiltration chamber and utilize nearby structure for outlet connection
BHS-8	Bioretention	Route downspout connection to bioretention cell adjacent to landscape area and utilize existing structure for overflow connection, no underdrain
BHS-9	Bioretention	Intercept runoff from storm inlets on concrete patio into bioretention cell in grassed area, construct bioretention next to storm inlet and utilize for overflow connection, no underdrain
BHS-11	Infil. Chamber	Route downspout connections to infiltration chamber and utilize nearby structure for outlet and IWS connection, fit shape to avoid utilities
BHS-12A	Bioretention	Retrofit bioretention cell in grassed landscape island to intercept runoff before entering existing storm inlet, utilize storm inlet for overflow and IWS connection
BHS-12B	Perm. Pavement	Convert gravel parking stalls into permeable pavement to treat direct rainfall only, no underdrain
BHS-13	Infil. Trench	Construct an infiltration trench along northern edge of driveway, add earthen berm for overflow into adjacent pond, no underdrain
BHS-14	Bioretention	Retrofit roadside swale into bioretention cell to intercept road and tennis court runoff, add an earthen berm on eastern side to route overflow to wooded area, no underdrain
BHS-15	Bioretention	Route runoff from swale to west of tennis court into grassed area around storm inlet and utilize it for overflow and IWS connection
BHS-16	Infil. Chamber	Route parking lot runoff into infiltration chamber within landscape island using a new inlet with shallower pipe or a pretreatment device or sand filter at existing structure to minimize influx of sediment and debris into chamber
BHS-17	Infil. Chamber	Route parking lot runoff into infiltration chamber within landscape island using a new inlet with shallower pipe or a pretreatment device or sand filter at existing structure to minimize influx of sediment and debris into chamber
BHS-18	Infil. Chamber	Route parking lot runoff into infiltration chamber within landscape island using a new inlet with shallower pipe or a pretreatment device or sand filter at existing structure to minimize influx of sediment and debris into chamber
BHS-19	Infil. Chamber	Route parking lot runoff into infiltration chamber within landscape island using a new inlet with shallower pipe or a pretreatment device or sand filter at existing structure to minimize influx of sediment and debris into chamber
BHS-20A	Conservation Area	Proposed Conservation Area for 1.65 acre (72,000 SF) wooded area
BHS-20B	Conservation Area	Proposed Conservation Area for 2.04 acre (89,000 SF) wooded area
BHS-21	Conservation Area	Proposed Conservation Area for 0.80 acre (35,000 SF) wooded area
BHS-22	Conservation Area	Proposed Conservation Area for 1.54 acre (67,000 SF) wooded area
BHS-23	Conservation Area	Proposed Conservation Area for 2.41 acre (105,000 SF) wooded area



Buckwalter Recreation Center																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	ft	Credit	ft	in
BRC-1	Bioretention	High	46	Northern Parking Lot (east to west)	0.21	1,598	\$47,000	\$29.42	High	1.21	1,150	45	26	2	1	1	75%	60	6	
BRC-2	Bioretention	High	45		0.17	1,281	\$37,000	\$28.88	High	1.21	900	52	17	2	1	1	75%	60	6	
BRC-3	Bioretention	High	45		0.13	1,011	\$31,000	\$30.66	High	1.21	750	45	16	2	1	1	75%	50	6	
BRC-4	Bioretention	High	45		0.13	973	\$29,000	\$29.82	High	1.21	700	40	18	2	1	1	75%	50	6	
BRC-5	Bioretention	High	44		0.10	780	\$23,000	\$29.50	High	1.21	550	32	17	2	1	1	75%	40	6	
BRC-6	Bioretention	High	44		0.09	695	\$21,000	\$30.23	High	1.33	500	34	15	2	1	1	75%	40	6	
BRC-7	Infiltration Chamber	Medium	32	Driveway Entrance/Front Parking Lot (southern end)	0.17	1,127	\$57,000	\$50.58	Mod-Low	1.33	650	40	17		4		75%	150	30	2 rows of 40' & 2 rows of 35'
BRC-8	Infiltration Chamber	Medium	34		0.30	2,022	\$91,000	\$45.00	Mod-Low	1.33	1,150	46	31		4		75%	250	30	6 rows of 25' & 5 rows of 20'
BRC-9	Bioretention	High	45	Eastern Roof	0.55	4,145	\$120,000	\$28.95	High	0.77	2,950	74	40	2	1	1	75%	160	8	
BRC-10	Bioretention	Medium	39	Entrance Roof	0.13	973	\$29,000	\$29.82	Moderate	0.94	700	48	15	2	1	1	75%	40	6	
BRC-11	Bioretention	Medium	31	Side Parking Lot	0.23	1,737	\$58,000	\$33.40	Low	0.94	1,250	65	18	2	1	1	75%	80	6	
BRC-12	Bioretention	High	40		0.49	3,690	\$118,000	\$31.98	Mod-Low	1.10	2,600	64	48	2	1	1	75%	100	8	
BRC-13	Conservation Area	High		East of Soccer Fields	0.00	t.b.d			High		7.32-ac									
BRC-14	Conservation Area	High		Northern/Western Boundary	0.00	t.b.d			High		40.86-ac									
<b>Total</b>					<b>2.70</b>	<b>20,030</b>	<b>\$661,000</b>				<b>13,850</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
BRC-1	Bioretention	Retrofit bioretention cell in swale between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet along driveway lane
BRC-2	Bioretention	Retrofit bioretention cell in swale between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet along driveway lane
BRC-3	Bioretention	Retrofit bioretention cell in swale between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet along driveway lane
BRC-4	Bioretention	Retrofit bioretention cell in swale between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet along driveway lane
BRC-5	Bioretention	Retrofit bioretention cell in swale between parking rows and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet along driveway lane
BRC-6	Bioretention	Retrofit bioretention cell in ditch along driveway and build up an earthen berm on the downstream end to create surface ponding, overflow from this BMP can flow into existing storm inlet that is immediately downstream
BRC-7	Infiltration Chamber	Route driveway runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; retrofit the adjacent, existing storm inlet in parking lot with a shallower configuration to route smaller storms to infiltration chamber and add a pretreatment device or sump to minimize influx of sediment and debris into chamber
BRC-8	Infiltration Chamber	Route driveway runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; retrofit the adjacent, existing storm inlet in parking lot with a shallower configuration to route smaller storms to infiltration chamber and add a pretreatment device or sump to minimize influx of sediment and debris into chamber
BRC-9	Bioretention	Route runoff from small roof to open space, adjacent to edge of wooded area, by disconnecting three downspouts; route runoff from larger roof area through addition of swale or shallow pipe along sidewalk
BRC-10	Bioretention	Route unuttered roof runoff through a shallow swale and route guttered runoff with downspout disconnection directly to bioretention cell; utilize existing storm inlet as overflow structure
BRC-11	Bioretention	Route runoff from parking lot into grassed area through trench drain or regrading pavement (consider shifting landscape island to this location); add an earthen berm to direct overflow directly into adjacent detention pond
BRC-12	Bioretention	Route runoff from both parking lot storm inlets into landscape island through trench drain or regrading pavement (consider shifting landscape island to this location); add a new storm structure that ties into existing storm pipe for outflow
BRC-13	Conservation Area	Proposed Conservation Area for 7.32 acre (319,000 SF) wooded area
BRC-14	Conservation Area	Proposed Conservation Area for 40.86 acre (1,780,000 SF) wooded area; some wetlands are proposed to be filled or converted to stormwater BMPs for Masterplan Expansion
OTHER	Pond Retrofit	Consider retrofit to outlet pipe or expansion of small pond adjacent to BRC-11 to provide additional infiltration; this requires additional modeling and soil testing to design and coordination with County on future park expansion plans



# Buckwalter Recreation Complex



114 Barnard Street, Suite 2B  
Savannah, GA 31401  
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H.E. McCracken Middle School																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRv	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRv												
HEMMS-1	Bioretention	High	40	Parking Lot/Detention	0.41	3,388	\$103,000	\$30.40	High	0.42	2,400	213	10	2	1	1	75%	300	6	
HEMMS-2	Bioretention	Medium	39	Driveway	0.25	2,190	\$64,000	\$29.23	High	0.35	1,550	110	14	2	1	1	75%	100	6	
HEMMS-3	Bioretention	High	40	Front Parking Lot	0.42	3,739	\$108,000	\$28.88	High	0.35	2,650	121	22	2	1	1	75%	140	6	
HEMMS-4	Bioretention	High	48	Roof Runoff from Wings	0.19	1,459	\$45,000	\$30.85	High	3.67	1,050	43	24	2	1	1	75%	120	6	
HEMMS-5	Bioretention	High	54		0.40	3,187	\$66,000	\$20.71	High	5.97	1,700	54	36	2	1	1	100%			
HEMMS-6	Bioretention	High	55		0.42	3,314	\$68,000	\$20.52	High	5.97	1,750	58	35	2	1	1	100%			
HEMMS-7	Bioretention	High	55		0.41	3,299	\$68,000	\$20.61	High	5.97	1,750	55	40	2	1	1	100%			
HEMMS-8	Infil. Chamber	Low	27		0.36	2,737	\$110,000	\$40.20	Mod-Low	0.35	1,550	58	27		4		75%	350	30	7 rows of 50'
HEMMS-9	Infil. Chamber	Medium	29	Northern Building	0.23	1,544	\$60,000	\$38.87	Mod-Low	0.35	875	47	19		4		75%	180	30	4 rows of 45'
HEMMS-10	Bioretention	High	45	Bus Dropoff Wings	0.10	855	\$17,000	\$19.89	Moderate	3.67	450	34	14	2	1	1	100%			
HEMMS-11	Bioretention	High	45		0.11	899	\$19,000	\$21.12	Moderate	3.67	500	34	15	2	1	1	100%			
HEMMS-12	Bioretention	High	56	Bus Parking Lot	1.41	10,652	\$303,000	\$28.45	High	3.67	7,500	145	76	2	1	1	75%	350	8	
HEMMS-13	Infil. Chamber	Low	23	Northern Building	0.18	1,189	\$49,000	\$41.22	Low	0.35	700	52	14		4		75%	150	30	3 rows of 50'
HEMMS-14	Bioretention	High	50	Northern Parking Lot	0.37	2,769	\$65,000	\$23.47	Moderate	10.65	1,700	185	9	2	1	0.75	100%			
<b>Total</b>					<b>5.26</b>	<b>41,220</b>	<b>\$1,145,000</b>				<b>26,125</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
HEMMS-1	Bioretention	Construct a berm along northern edge of detention pond to create a bioretention cell that will intercept runoff from parking lot before entering pond (pre-treatment), add a low point on berm to discharge overflow into pond
HEMMS-2	Bioretention	Retrofit bioretention cell in grassed area around storm inlet and utilize it for overflow
HEMMS-3	Bioretention	Retrofit bioretention cell in grassed area around storm inlets and utilize them for overflow
HEMMS-4	Bioretention	Add gutter or regrade swale for western roof to flow to the north, retrofit bioretention cell in grassed area away from fire lane and construct overflow swale away from school
HEMMS-5	Bioretention	Retrofit bioretention cell immediately upstream of storm inlet and construct an earthen berm for overflow to pass through into nearby storm inlet, no underdrain
HEMMS-6	Bioretention	Retrofit bioretention cell in grassed area around storm inlet and utilize it for overflow, no underdrain
HEMMS-7	Bioretention	Retrofit bioretention cell in grassed area around storm inlet and utilize it for overflow, no underdrain
HEMMS-8	Infil. Chamber	Route/pipe rooftop runoff into infiltration chamber in grassed area near school entrance, utilize existing structure for outflow
HEMMS-9	Infil. Chamber	Route/pipe rooftop runoff into infiltration chamber in grassed area near school entrance, utilize existing structure for outflow
HEMMS-10	Bioretention	Retrofit bioretention cell in grassed area around storm inlet and utilize it for overflow, no underdrain
HEMMS-11	Bioretention	Retrofit bioretention cell in grassed area around storm inlet and utilize it for overflow, no underdrain
HEMMS-12	Bioretention	Retrofit large bioretention cell in grassed area next to bus circle, just upstream of driveway culvert, and create an earthen berm for overflow to pass into existing culvert
HEMMS-13	Infil. Chamber	Route/pipe rooftop runoff into infiltration chamber in grassed area next to building, avoid utilities, and utilize existing structure for outflow
HEMMS-14	Bioretention	Rehabilitate existing bioswale into a bioretention cell, utilize existing storm inlet for overflow, no underdrain



H.E. McCracken Middle School



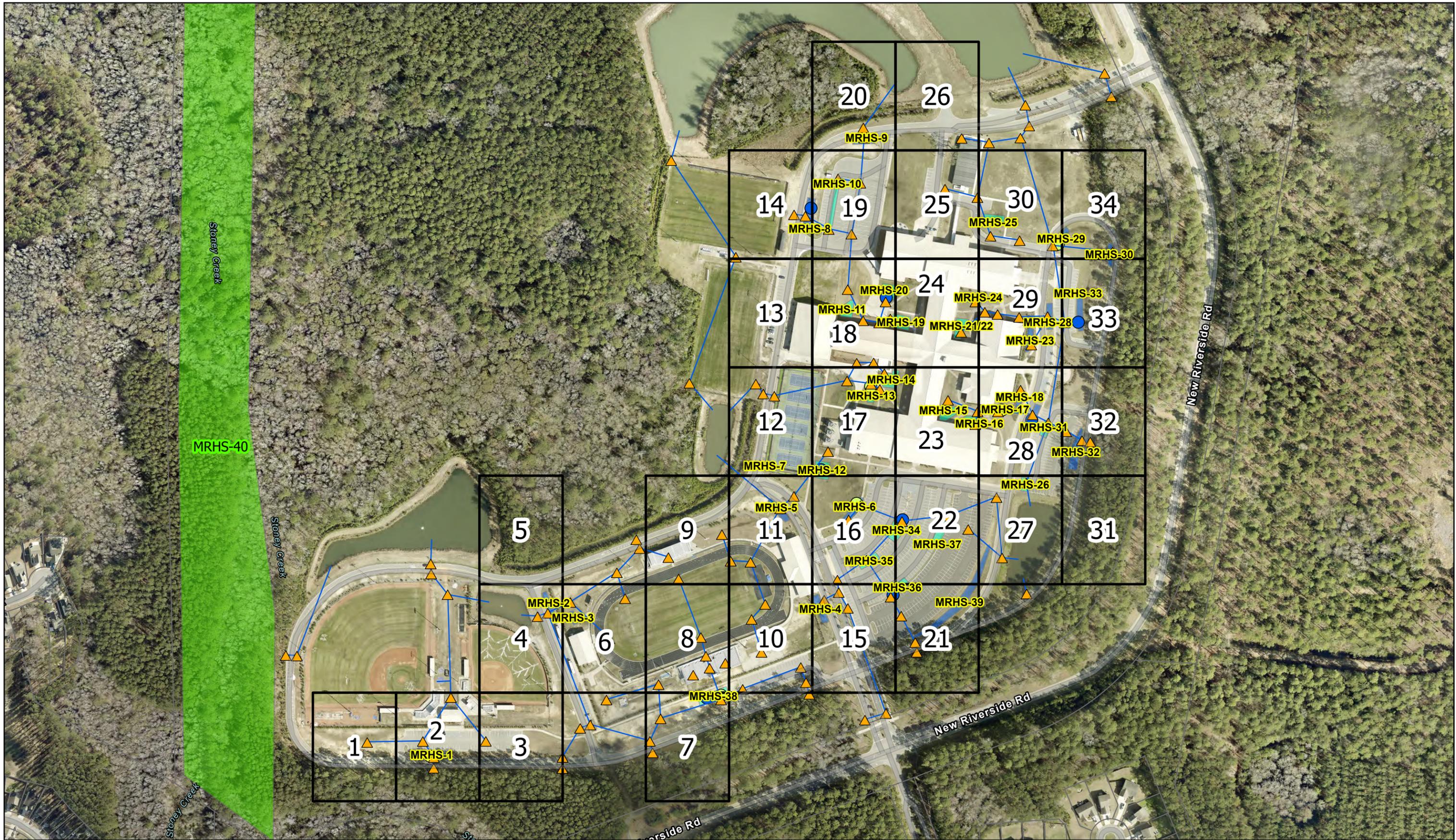
114 Barnard Street, Suite 2B  
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May River High School																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	Credit	ft	in	
MRHS-1	Bioretention	Medium	30	Road near Baseball	0.21	1,613	\$47,000	\$29.13	Mod-Low	1.76	1,150	89	13	2	1	1	75%	80	6	
MRHS-2	Bioretention	Medium	33	Road N. of Track	0.25	1,876	\$55,000	\$29.32	Moderate	1.76	1,350	80	17	2	1	1	75%	90	6	
MRHS-3	Bioretention	Medium	32	Bldg N. of Track	0.12	919	\$27,000	\$29.39	Moderate	1.76	650	41	17	2	1	1	75%	65	6	
MRHS-4	Bioretention	Medium	28	Rd/Bldg S. of Track	0.34	2,586	\$75,000	\$29.00	Mod-Low	0.99	1,850	87	21	2	1	1	75%	100	6	
MRHS-5	Bioretention	Medium	29		0.32	2,424	\$69,000	\$28.47	Moderate	0.35	1,700	85	19	2	1	1	75%	90	6	
MRHS-6	Bioretention	Medium	29	Western Parking Lot	0.34	2,563	\$73,000	\$28.49	Moderate	0.35	1,800	96	22	2	1	1	75%	90	6	
MRHS-7	Infil. Trench	Medium	36	Tennis Courts	0.84	6,306	\$146,000	\$23.15	Moderate	0.35	4,350	540	8		2	0.75	75%	500	6	
MRHS-8	Bioretention	Medium	29	Road NE of School	0.50	3,759	\$107,000	\$28.46	Moderate	0.06	2,650	102	26	2	1	1	75%	120	6	
MRHS-9	Bioretention	Medium	28		0.23	1,737	\$51,000	\$29.37	Moderate	0.06	1,250	69	18	2	1	1	75%	80	6	
MRHS-10	Infil. Chamber	Low	20	Parking NE of School	0.45	3,041	\$156,000	\$51.30	Mod-Low	0.06	1,700	132	13		4		75%	390	30	3 rows of 130'
MRHS-11	Infil. Chamber	Low	26	Rooftops	0.42	2,841	\$108,000	\$38.02	Mod-Low	0.52	1,600	53	35		4		75%	320	30	7 rows of 35' & 3 rows at 25'
MRHS-12	Infil. Chamber	Low	24		0.59	3,937	\$157,000	\$39.88	Mod-Low	0.35	2,200	50	45		4		75%	500	30	10 rows of 50'
MRHS-13	Infil. Chamber	Low	23		0.22	1,513	\$62,000	\$40.98	Mod-Low	0.52	850	42	20		4		75%	200	30	5 rows of 40'
MRHS-14	Infil. Chamber	Low	26		0.54	3,659	\$144,000	\$39.36	Mod-Low	0.52	2,050	54	42		4		75%	450	30	5 rows of 40' & 5 rows at 50'
MRHS-15	Infil. Chamber	Low	23		0.48	3,196	\$120,000	\$37.55	Mod-Low	0.11	1,800	45	44		4		75%	350	30	7 rows of 40' & 2 rows at 35'
MRHS-16	Infil. Chamber	Low	22		0.32	2,146	\$83,000	\$38.68	Mod-Low	0.11	1,200	57	21		4		75%	250	30	5 rows of 50'
MRHS-17	Infil. Chamber	Low	18		0.10	648	\$30,000	\$46.27	Mod-Low	0.11	400	27	15		4		75%	100	30	4 rows of 25'
MRHS-18	Bioretention	Low	27		0.18	1,351	\$39,000	\$28.87	Moderate	0.11	950	54	18	2	1	1	75%	50	6	
MRHS-19	Infil. Chamber	Low	24		0.58	3,921	\$157,000	\$40.04	Mod-Low	0.52	2,200	54	41		4		75%	500	30	10 rows of 50'
MRHS-20	Infil. Chamber	Low	24		0.52	3,473	\$140,000	\$40.31	Mod-Low	0.52	1,950	49	41		4		75%	450	30	10 rows of 45'
MRHS-21/22	Infil. Chamber	Low	24		0.49	3,304	\$134,000	\$40.56	Mod-Low	0.54	1,900	62	36		4		75%	420	30	5 rows of 60' & 4 rows at 30'
MRHS-23	Bioretention	Medium	31		0.23	1,737	\$51,000	\$29.37	Moderate	0.54	1,250	72	17	2	1	1	75%	70	6	
MRHS-24	Infil. Chamber	Low	25		0.26	1,760	\$68,000	\$38.64	Mod-Low	0.54	1,000	52	20		4		75%	200	30	4 rows of 50'
MRHS-25	Infil. Chamber	Low	23		0.36	2,439	\$106,000	\$43.46	Mod-Low	0.54	1,400	60	24		4		75%	360	30	6 rows of 60'
MRHS-26	Infil. Chamber	Low	19	0.27	1,822	\$100,000	\$54.90	Mod-Low	0.11	1,050	40	26		4		75%	240	30	6 rows of 40'	
MRHS-27	Bioretention	Medium	28	0.28	2,115	\$61,000	\$28.84	Moderate	0.11	1,500	82	18	2	1	1	75%	80	6		
MRHS-28	Bioretention	Medium	31	Road in Front of School	0.29	2,184	\$63,000	\$28.84	Moderate	0.54	1,550	78	19	2	1	1	75%	75	6	
MRHS-29	Bioretention	Medium	28		0.23	1,768	\$51,000	\$28.85	Mod-Low	0.54	1,250	72	17	2	1	1	75%	75	6	
MRHS-30	Bioretention	Medium	30		0.16	1,235	\$37,000	\$29.96	Moderate	0.54	900	67	14	2	1	1	75%	70	6	
MRHS-31	Infil. Chamber	Low	19		0.28	1,883	\$100,000	\$53.10	Mod-Low	0.11	1,050	44	23		4		75%	240	30	6 rows of 40'
MRHS-32	Bioretention	Low	26	Southern Parking Lot	0.53	4,037	\$122,000	\$30.22	Mod-Low	0.11	2,850	126	26	2	1	1	75%	125	6	
MRHS-33	Bioretention	Medium	28		0.39	2,933	\$94,000	\$32.05	Mod-Low	0.54	2,100	114	19	2	1	1	75%	160	6	
MRHS-34	Infil. Chamber	Low	24	Western Parking Lot	0.66	4,415	\$220,000	\$49.83	Mod-Low	0.43	2,500	62	40		4		75%	540	30	9 rows of 60'
MRHS-35	Infil. Chamber	Low	22		0.38	2,532	\$130,000	\$51.35	Mod-Low	0.99	1,450	64	22		4		75%	300	30	5 rows of 60'
MRHS-36	Infil. Chamber	Low	22		0.39	2,624	\$141,000	\$53.73	Mod-Low	0.99	1,500	67	22		4		75%	360	30	6 rows of 60'
MRHS-37	Infil. Chamber	Low	23		0.62	4,153	\$212,000	\$51.05	Mod-Low	0.43	2,350	97	24		4		75%	540	30	6 rows of 90'
MRHS-38	Infil. Chamber	Medium	30		Track/Football Bleachers	0.66	4,431	\$175,000	\$39.50	Mod-Low	1.76	2,500	93	27		4		75%	540	30
MRHS-39	Bioretention	Medium	38	Western Parking Lot (Southern Island)	1.26	9,525	\$288,000	\$30.24	Moderate	0.99	6,700	376	20	2	1	1	75%	400	8	
MRHS-40	Conservation Area	High		Northern Boundary	0.00	t.b.d			High		28.65-ac									
<b>Total</b>					<b>15.30</b>	<b>108,402</b>	<b>\$3,999,000</b>				<b>68,450</b>									

1 75% = Internal Water Storage (IWS); 100% = No Underdrain

Attachment 2.  
MRWAP IRP Maps and Summary Tables

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
MRHS-1	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-2	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-3	Bioretention	Disconnect and reroute downspouts to eastern side of building and utilize adjacent structure for outflow connection
MRHS-4	Bioretention	Modify inlet or add flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection, route half of building downspouts here too
MRHS-5	Bioretention	Add flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection, route half of building downspouts here too
MRHS-6	Bioretention	Add curb cut/flume at two existing structures to route runoff to bioretention cell and utilize eastern existing structure for overflow connection, western structure and pipe can be removed, realign sidewalk
MRHS-7	Infil. Trench	Install infiltration trench along perimeter of tennis courts to intercept runoff, and route runoff to adjacent structure along road
MRHS-8	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection; for catch basin across street, attempt to route stormwater into bioretention subsurface
MRHS-9	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-10	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-11	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-12	Infil. Chamber	Route primary pipe from multiple downspout connections to infiltration chamber and utilize existing structure for outlet connection; as an alternate, install infiltration chambers or bioretention near downspouts adjacent to parking lot
MRHS-13	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-14	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-15	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-16	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-17	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-18	Bioretention	Disconnect downspout and route flow to bioretention cell via a shallow swale; connect bioretention cell with existing landscaping
MRHS-19	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-20	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-21/22	Infil. Chamber	Route downspout connections from -21 & -22 to infiltration chamber and utilize existing structure for outlet connection
MRHS-23	Bioretention	Disconnect downspout and route flow to bioretention cell via a shallow swale; connect bioretention cell with existing landscaping
MRHS-24	Infil. Chamber	Route downspout connection to infiltration chamber and utilize existing structure for outlet connection
MRHS-25	Infil. Chamber	Route downspout connection to infiltration chamber in grassed area across driveway, while avoiding utilities, and utilize existing structure for outlet connection
MRHS-26	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-27	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-28	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-29	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-30	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection
MRHS-31	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-32	Bioretention	Add curb cut/flume adjacent to catch basin to route runoff to linear ROW bioretention cell and utilize existing structure for overflow connection; for catch basin across street, attempt to route stormwater into bioretention subsurface
MRHS-33	Bioretention	Route runoff from parking lot into grassed area through trench drain, regrading pavement, or adding a new inlet with shallower pipe; utilize existing storm inlet for outlet connection
MRHS-34	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-35	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-36	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-37	Infil. Chamber	Route parking lot runoff into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-38	Infil. Chamber	Route runoff from pipe draining bleachers and part of track into infiltration chamber and utilize existing storm structure for overflow/bypass; add a pretreatment device or sump to minimize influx of sediment and debris into chamber
MRHS-39	Bioretention	Route runoff from two storm inlets in parking lot into grassed area through adding a new inlet with shallower pipe; utilize the eastern structure for an outlet connection
MRHS-40	Conservation Area	Proposed Conservation Area for 28.65 acre (1,248,000 SF) wooded area; approximately a 200-ft buffer around northern and eastern boundary of parcel



May River High School



114 Barnard Street, Suite 2B  
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Attachment 2.  
MRWAP IRP Maps and Summary Tables

Pritchardville Elementary School																				
Site ID	BMP Type	Overall Ranking	Numerical Score	Drainage Area / Location	Impervious Area	SWRv	Construction Cost	Cost/SWRV	Constructability	Infil Rate	BMP Area	Length	Width	Media Depth	Gravel Depth	Ponding Depth	Underdrain <sup>1</sup>	Pipe Length	Pipe Diameter	Infiltration Chamber Notes
					acres	CF		\$/SWRV		in/hr	SF	ft	ft	ft	ft	ft	Credit	ft	in	
PES-1	Infiltration Chamber	Low	24	Front Roof	0.08	605	\$27,000	\$44.61	Mod-Low	0.81	450	33	14		3		75%	90	30	3 rows of 30'
PES-2	Infiltration Chamber	Low	25		0.15	1,126	\$50,000	\$44.40	Mod-Low	0.81	850	60	14		3		75%	165	30	3 rows of 55'
PES-3	Infiltration Chamber	Low	25		0.15	1,124	\$50,000	\$44.50	Mod-Low	0.84	850	60	14		3		75%	165	30	3 rows of 55'
PES-4	Infiltration Chamber	Low	24		0.08	596	\$27,000	\$45.34	Mod-Low	0.84	450	33	14		3		75%	90	30	3 rows of 30'
PES-5	Bioretention	High	41	Front Parking Lot Median	0.48	3,650	\$76,000	\$20.82	High	0.81	1,950	170	11.5	2	1	1	100%			
PES-6	Bioretention	High	48		0.33	2,536	\$52,000	\$20.51	High	2.08	1,350	92	14.5	2	1	1	100%			
PES-7	Bioretention	Medium	38	Western Pervious Concrete Parking Row, Front Parking Lot	0.05	401	\$10,000	\$24.91	High	0.81	250	29	8	2	1	1	100%			
PES-8	Bioretention	Medium	38		0.04	286	\$6,000	\$21.01	High	0.81	150	18	9	2	1	1	100%			
PES-9	Bioretention	High	46		0.10	702	\$16,000	\$22.78	High	2.08	400	39	10	2	1	1	100%			
PES-10	Bioretention	High	42		0.09	633	\$14,000	\$22.12	Moderate	2.08	350	34	10	2	1	1	100%			
PES-11	Bioretention	Medium	36	Main Driveway, North	0.29	2,138	\$45,000	\$21.05	Moderate	0.84	1,150	55	21	2	1	1	100%			
PES-12	Bioretention	High	42	Southern Parking Lot	0.21	1,567	\$36,000	\$22.98	High	1.58	950	115	8	2	1	0.75	100%			
PES-13	Bioretention	Medium	39		0.65	4,569	\$125,000	\$27.36	Moderate	1.58	2,650	240	11	2	1	0.75	100%			
PES-14/15	Infiltration Chamber				3		100%	240	30	1 row of 240'										
PES-16	Infiltration Chamber	Low	20	Playground	0.36	2,549	\$108,000	\$42.37	Low	0.12	1,450	44	33		4		75%	360	30	9 rows of 40'
PES-17	Bioretention	Medium	37	Southern Driveway	0.50	3,744	\$110,000	\$29.38	High	0.31	2,650	118 / 97	14 / 10	2	1	1	75%	200	6	
PES-18	Bioretention	Medium	39	Main Driveway, South	0.14	1,027	\$21,000	\$20.46	High	0.81	550	40	14	2	1	1	100%			
PES-19	Bioretention	Medium	39		0.11	841	\$17,000	\$20.21	High	0.81	450	37	12	2	1	1	100%			
PES-20	Bioretention	High	43	Main Driveway, Front	0.17	1,250	\$27,000	\$21.59	Moderate	2.08	700	54	13	2	1	1	100%			
PES-21	Cistern	High		Rear of Building	0.07	t.b.d			High											
PES-22	Conservation Area	High		Northwest Corner	0.00	t.b.d			High		1.84-ac									
PES-23	Conservation Area	High		Southeast Corner	0.00	t.b.d			High		2.07-ac									
<b>Total</b>					<b>4.06</b>	<b>29,343</b>	<b>\$817,000</b>				<b>17,600</b>									

<sup>1</sup> 75% = Internal Water Storage (IWS); 100% = No Underdrain

Site ID	BMP Type	Other Design & Flow Routing/Implementation Notes
PES-1	Infiltration Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured closer to sidewalk due to proximity to school structure
PES-2	Infiltration Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured closer to sidewalk due to proximity to school structure
PES-3	Infiltration Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured closer to sidewalk due to proximity to school structure; consider Alt. PES-3/4 if desired to be farther from school building
PES-4	Infiltration Chamber	Route roof drains to infiltration chamber, utilize IWS to return flow to storm system, configured closer to sidewalk due to proximity to school structure; consider Alt. PES-3/4 if desired to be farther from school building
PES-5	Bioretention	Utilize existing storm inlets as overflow structures, runoff already flows to this low point
PES-6	Bioretention	Utilize existing storm inlet as overflow structure, runoff already flows to this low point
PES-7	Bioretention	Utilize existing storm inlet as a curb cut/flume to route flow into bioretention cell
PES-8	Bioretention	Utilize existing storm inlet as a curb cut/flume to route flow into bioretention cell
PES-9	Bioretention	Utilize existing storm inlet as a curb cut/flume to route flow into bioretention cell
PES-10	Bioretention	Utilize existing storm inlet as a curb cut/flume to route flow into bioretention cell
PES-11	Bioretention	Utilize existing storm inlet as a curb cut/flume to route flow into bioretention cell
PES-12	Bioretention	Install curb cut along curb and gutter to route flow into bioretention cells (grassed median), and route overflow as sheetflow into parking lot to the east
PES-13	Bioretention	Bioretention combined with Infiltration Chamber; bioretention cell to receive sheet flow from parking lot and infiltration chamber will receive runoff from two storm inlets along driveway
PES-14/15	Infiltration Chamber	
PES-16	Infiltration Chamber	Route roof drains and runoff from playground to infiltration chamber, configured system as subsurface due to proximity to school/playground
PES-17	Bioretention	Two linear bioretention cells; based on drainage areas, it is split as ~2/3 on southern side of driveway and ~1/3 on northern side of driveway; consider hybrid infiltration chamber system if more storage is needed and elevations warrant it
PES-18	Bioretention	Utilize existing storm inlet as overflow structure, runoff already flows to this low point
PES-19	Bioretention	Utilize existing storm inlet as overflow structure, runoff already flows to this low point
PES-20	Bioretention	Utilize existing storm inlet as overflow structure, runoff already flows to this low point
PES-21	Cistern	Connect up to two downspouts to route 3,200 SF of rooftop for capture and reuse for adjacent raised beds/gardens
PES-22	Conservation Area	Proposed Conservation Area for 1.84 acre (80,200 SF) wooded area
PES-23	Conservation Area	Proposed Conservation Area for 2.07 acre (90,000 SF) wooded area



# Pritchardville Elementary School

