



CONCEPT PLAN C1.4 SUMMARY:

IN CONCEPT PLAN C1.4, FILL IS PROPOSED AROUND THE VULNERABLE EDGE OF CYPRESS PARK'S NORTHERN HALF. THE FILL IS PROPOSED AT ELEVATION 2.00'. FILLING TO ELEVATION 2.00' WAS SELECTED TO PROVIDE PROTECTION TO YEAR 2040 WITH A MEDIUM RISK TOLERANCE. FILLING TO ELEVATION 2.00' WOULD ALLOW THE PARK TO DRAIN FREELY.

WETLAND DISTURBANCE IS APPROXIMATELY ESTIMATED AT 16,879 SQ-FT THAT HAS TO BE MITIGATED AT A 1:1 BARE MINIMUM RATIO (I.E. ONE FOOT OF DISTURBANCE = ONE FOOT OF MITIGATION THROUGH WETLAND CREATION). WITH FILL ADDED TO THE EDGE OF THE NORTHERN HALF OF THE PARK, POCOMOKE CITY WOULD HAVE TO MODIFY OR RECONSTRUCT EXISTING INFRASTRUCTURE. INFRASTRUCTURE MODIFICATIONS INCLUDING DEMOLISHING AND REBUILDING BOTH EXITING PAVILIONS; RESURFACING OR REBUILDING THE COURTS WOULD ALSO BE NECESSARY, AT LEAST PARTIALLY. THE EXISTING ASPHALT WALKING TRAIL COULD BE REBUILT ON TOP OF THE FILL IN NEARLY THE SAME FOOTPRINT OF THE CURRENT TRAIL FOOTPRINT. THE SOUTHERN HALF OF CYPRESS PARK IS THE LEAST USED SPACE IN THE PARK AND IS MORE OPEN AND NATURAL, MAKING THE SOUTHERN HALF AN IDEAL LOCATION FOR ANY PROPOSED ON-SITE WETLAND MITIGATION REQUIREMENTS AND IS THEREFORE LEFT ALONE FOR THAT PURPOSE.

FILL ELEVATED TO ELEVATION 2' WOULD PROTECT THE PARK FROM THE MAJORITY OF HIGH TIDE EVENTS CURRENTLY, BASED ON THE SNOW HILL TIDE GAUGE. THE FILL WOULD ALSO PROTECT THE PARK FROM SEA LEVEL RISE PROJECTIONS UP TO THE YEAR 2040, IN THE MEDIUM RISK TOLERANCE CATEGORY. ACCORDING TO THE SEA LEVEL RISE PROJECTIONS, THE 2040 MEDIUM RISK TOLERANCE PLUS THE AVERAGE TIDE RANGE PUTS THE ELEVATION AT 2.04' - THIS EQUATES TO 1/2 INCH ABOVE ELEVATION 2.00'. FOR SIMPLICITY OF ILLUSTRATION, ELEVATION 2.00' MEETS THIS TOLERANCE FOR ALL INTENTS AND PURPOSES. FILLING TO ELEVATION 2.14' WHICH PROTECTS THE PARK TO THE LOW RISK TOLERANCE IS ALSO POSSIBLE, HOWEVER, THE MEDIUM RISK TOLERANCE IS CONSIDERED THE RECOMMENDED AIM TO STRIVE FOR BY MARYLAND DNR IN PRIOR CYPRESS PARK STUDY.

THE MAIN ADVANTAGE OF WIDE SPREAD FILL IS THAT THE FILL COULD MITIGATE MOST HIGH TIDE EVENTS AND MAINTAIN POSITIVE SHEETFLOW DRAINAGE FROM THE HIGH GROUND STRAIGHT INTO THE RIVER WITHOUT THE NEED FOR ADDITIONAL STORMWATER MANAGEMENT OR MAINTENANCE. THIS WOULD ALLOW THE CITY TO MAINTAIN VALUABLE OPEN SPACE WITH LITTLE MAINTENANCE WHILE KEEPING MOST OF THE PARK HIGH AND DRY FOR THE IMMEDIATE FUTURE.

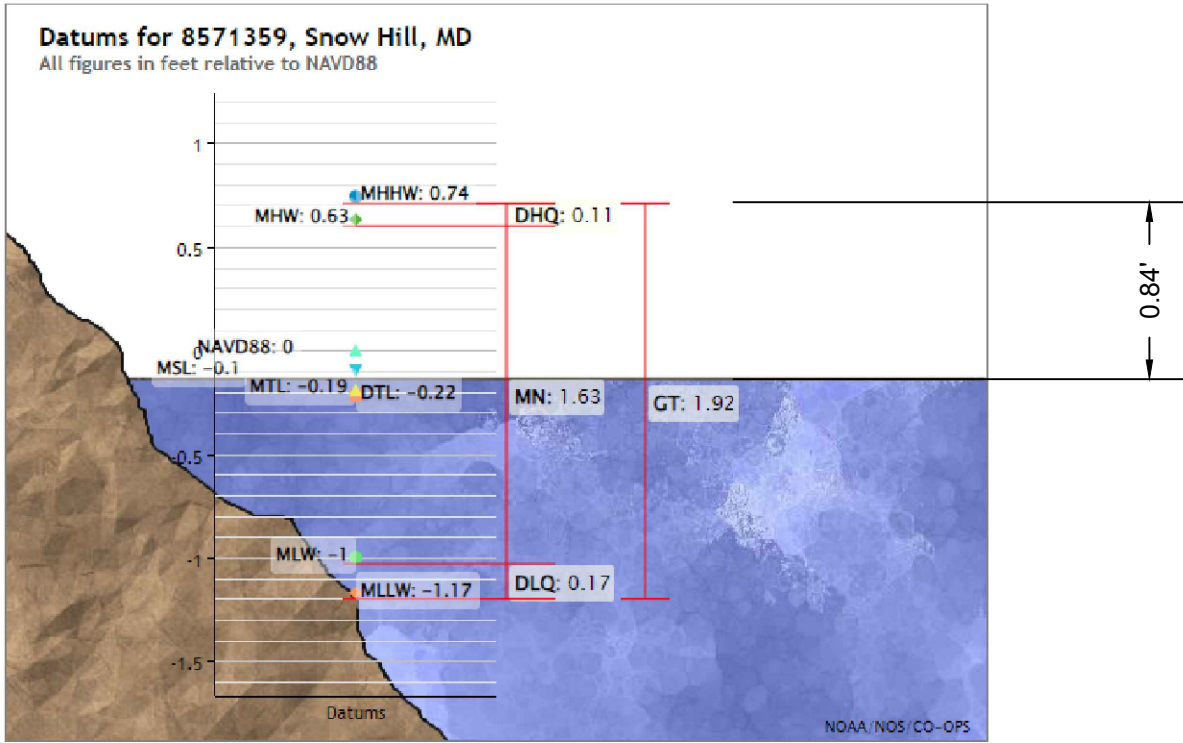
ESTIMATED BASE HARD COSTS: \$322,061

Item	QTY	Unit	Unit Price	Extended	Subtotal
<strong>CONSTRUCTED WETLAND</strong>					
Capital Costs	16,879.00	SF	\$ 12.06	\$ 203,560.74	
					\$ 203,560.74
<strong>EARTHWORK</strong>					
Import	1,185	CY	\$ 100.00	\$ 118,500.00	
					\$ 118,500.00
<strong>TOTAL</strong>					<strong>\$ 322,060.74</strong>

NOTE:  
COSTS ARE NOT FINAL COST ESTIMATES NOR ARE THEY ALL INCLUSIVE OF ALL COSTS. THEY ARE BASED ON AN ORDER OF MAGNITUDE AND COMMON DENOMINATORS REQUIRED FOR EACH CONCEPT PLAN APPROACH.

TIDE DATA - SNOW HILL TIDE GAUGE - DATUM IS NAVD88:

AVERAGE HIGH TIDE IS ELEVATION 0.63'. AVERAGE MEAN HIGHER HIGH WATER (MHHW) IS 0.74'. TIDE RANGE POTENTIAL IS 0.84' BETWEEN MEAN SEA LEVEL AND MHHW ELEVATION.

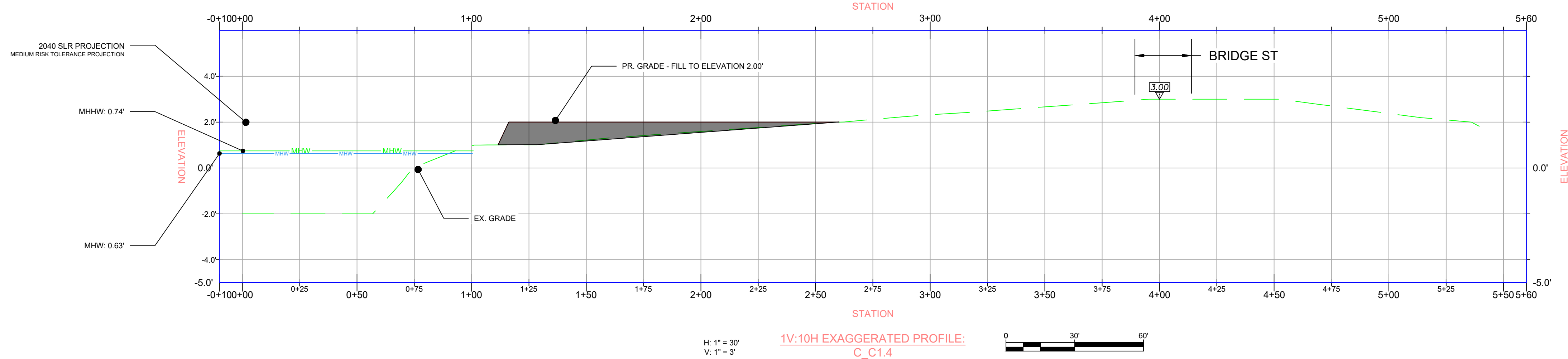


SEA LEVEL RISE (SLR) PROJECTIONS:  
BASED ON UMCES SLR PROJECTIONS 2023 - CAMBRIDGE TIDE STATION

Tide Gauge: Cambridge MD Emissions Pathway: SSP2-4.5 (ft)				
Year	5th percentile	50th percentile (High tolerance for flood risk)	83rd percentile (Medium tolerance for flood risk)	83rd-95th percentile with additional ice loss (Low tolerance for flood risk)
2040	0.50	0.92	1.20	1.3
2050	0.76	1.23	1.57	1.6
2060	1.02	1.53	1.92	2.3
2070	1.26	1.85	2.33	3.0
2080	1.49	2.16	2.74	3.6
2090	1.68	2.45	3.15	4.3
2100	1.78	2.79	3.65	4.9
2110	1.82	3.07	4.13	5.9
2120	2.01	3.41	4.60	6.9

EQUATION: TIDE RANGE POTENTIAL + SLR PROJECTION BASED ON COMMUNITY'S RISK TOLERANCE AND/OR SITE CONSTRAINTS = NEW TIDE WATER SURFACE ELEVATION

C1.4 SCENARIO EXAMPLE: 0.84' (TIDE RANGE POTENTIAL) + 1.20' (SLR PROJECTION) = 2.04'



CYPRESS PARK - CONCEPT PLAN C1.4

OF THE LANDS OF

POCOMOKE CITY

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REVISIONS

REV. #	DATE	DESCRIPTION
1		

DATE: 9/9/2024

SCALE: AS SHOWN

DRAWN BY: WCS

DESIGNED BY: WCS

APPROVED BY:

SHEET NO.:

C-1.4

FOR REVIEW