



Atlantic Beach Town Council
Special Meeting – Planning Retreat
125 West Fort Macon Road
In the Town Emergency Operations Center
Monday, February 12, 2024 at 8:00am

8:00am **Call to Order**

Approval of Agenda

8:05 **Annual Department Head Update (10 minutes each)**

- a) Police
- b) Fire
- c) Planning and Inspections
- d) Public Services
- e) Finance - Budget Update
- f) Parks and Recreation

9:00 **Boardwalk Project**

9:30 **Water Plant Upgrades**

9:45 **Parking Program Update and Parking Permit Discussion**

10:15 **Fire Truck Financing**

10:30 **Review of 2023 Retreat Objectives and Ongoing Projects**

11:00 **NCSU NLI Playground Presentation**

11:45 **Closing Comments**

12:00pm **Adjourn**

P. O. Box 10
125 West Fort Macon Road
Atlantic Beach, NC 28512



Phone: (252) 726-2121
Fax: (252) 726-5115

MEMORANDUM

TO: Mayor and Council
FROM: John O'Daniel, Manager
DATE: February 12, 2024
SUBJECT: Retreat Discussion Item Summary

Mayor and Council,

Please see the summary of the items to be discussed at our retreat.

1. Annual Department Head Updates

Department heads do not often have an opportunity to present to council, so I wanted to give each a few minutes to give an update on their department. I have asked them to discuss their success and challenges over the last year as well as an update on any future challenges or budget requests they feel you should be aware of.

2. Boardwalk Project

Since we did not receive the PARTF grant in 2023, I would like to discuss how to proceed with this project. Do we still want to move forward as planned, or do we want to modify our plans? If we shift direction, we will need to discuss the design firm contract and any outstanding engineer invoices.

3. Water Plant Upgrades

I want to give you all a quick overview of the water plant upgrades mentioned briefly at a prior meeting. This is a major project that we need to start thinking about as we get into budget season. I have attached the 2021 Water Plant Assessment and would like to call your attention to the priority items on pages 16 and 17.

We are working to get an updated assessment with cost estimates and the impact the improvements will have on water rates. We will discuss this in more detail during the budget work sessions.

4. Parking Program Update and parking pass discussion

We need to finalize the parking pass program so it is ready for approval at the February 26 regular meeting. A draft policy is attached that is similar to what was discussed in the past, with a few small changes for clarity and to help address issues we have seen. One area we cleaned up is how golf carts and LSVs are treated. We would also like some input on the idea of "Star Spaces" and an all-day rate.

5. **Fire Truck Financing**

Now that we have received the new fire truck, we need to decide whether to pay off the loan or move the funds to Fund Balance and begin making annual loan payments.

Loan amount: 1,094,356.35 at 3.35% interest

Loan proceeds in First Bank money market account: 1,200,461.69 earning .03% interest

Note: Money can be moved to NCCMT with a current interest rate of 5.38%. NCCMT is very liquid, but rates can fluctuate quickly at any time.

Option A:

- Put loan proceeds into GF fund balance. This would increase fund balance from 31.1% to 42.79%.
- Continue to make annual Debt payments of \$112,560.44 for 13 years

On January 24, 2022, Atlantic Beach Town Council passed a resolution setting a policy for the Town to strive to maintain an unassigned fund balance of approximately 35% of expenditures. This is more conservative than the Local Government Commission (LGC) requirement to maintain an unassigned fund balance of 8% of total expenditures.

Option B:

- Pay off loan.
- Re-allocate the annual payments to start a capital reserve fund.

6. **Review of Last Year's Retreat Objectives**

We were able to finish many items on our to-do list, but a few are still outstanding, so I will briefly discuss them and see if we want to keep them on our list or move on to other projects. The entire list is attached, and I encourage you to look at the list in its entirety, but since it is difficult to view, I have also attached a summary page of the items that I would like to discuss at the retreat.

7. **NCSU NLI Playground Draft Presentation**

NLI will present a draft plan for the park. They will be asking for input to make sure any major changes are made before they dive deeper into creating the final site plan. They are purely seeking feedback on the draft plans.

I have allocated 30 minutes for their presentation and questions. After the presentation, I have set aside 15 minutes for internal discussion if needed.



**TOWN COUNCIL
NOTICE OF RETREAT MEETING
RE-SCHEDULED**

NOTICE IS HEREBY GIVEN that the Atlantic Beach Town Council Work Session Retreat scheduled for Thursday, February 15, 2024, has been re-scheduled for **Monday, February 12, 2024, at 8:00 am** in the Town's Emergency Operations Center located at 125 West Fort Macon Road.

This the 2nd day of February, 2024.

Katrina Tyer
Town Clerk



Atlantic Beach Police Department

P.O. Box 10
125 W. Ft. Macon Road
Atlantic Beach, NC
28512

Dave Clifton
Chief of Police

Phone: (252)726-2523
Fax: (252)727-0312

Memorandum

To: Mayor Danny Navey and Members of the Atlantic Beach Town Council

From: Dave Clifton, Chief of Police

To become more efficient in serving the Town and its citizens, the staff of police department would like Council Members to consider two items for 2024.

1. Community Policing/Patrol Administration Position

Some years back, the police department lost a position that was titled “Community Policing/Investigations”. We are proposing adding an additional officer to our current staffing levels and expanding this position by renaming it from “Community Policing/Investigations” to “Community Policing/Patrol Administration”. The new job description for this position would be multi-layered and not limited to community policing or investigations. The officer in this position would still manage police operations for all community and town events that require or request a police response, such as the Beach Music Festival, National Night Out, Trunk or Treat, and Coffee with a Cop. They would also still support the Lead Investigator as required. But in addition to these duties, they would now review all body-cam footage, review traffic crash and calls for service reports, assign annual In-Service Training, assist with the NC League of Municipalities Law Enforcement Risk Review, review timesheets, and various other administrative duties that support police department operations. When not engaged in community policing, patrol administrative, or investigative responsibilities, this officer would supplement calls for service, attend special events, and assist with the research of grant opportunities and other police department activities. The position would also help with staffing shortages as they arise.

This new position would allow the current Police Shift Commander to work the road in a preventive patrol capacity and to manage the squad personnel, as needed, giving the Commander a better opportunity to assist with the development of the Shift Supervisors and younger patrol officers.

We would fill the proposed Community Policing Coordinator/Patrol Administrator position from within our department to take advantage of the experience some of our officers have. We could then advertise for a Sergeant's position to fill the vacancy created by moving an internal candidate to the new position. (NOTE: The vacant sergeant's position created would need to be filled from outside of our agency since the current staff is not eligible based on time-in-service.) The estimated budgetary impact for adding a new hire sergeant with a B.A. degree and multiple years of service is approximately \$61,500 plus approximately \$31,000 in FICA/401K/Retirement/Insurance using today's rates.



Atlantic Beach Police Department

P.O. Box 10
125 W. Ft. Macon Road
Atlantic Beach, NC
28512

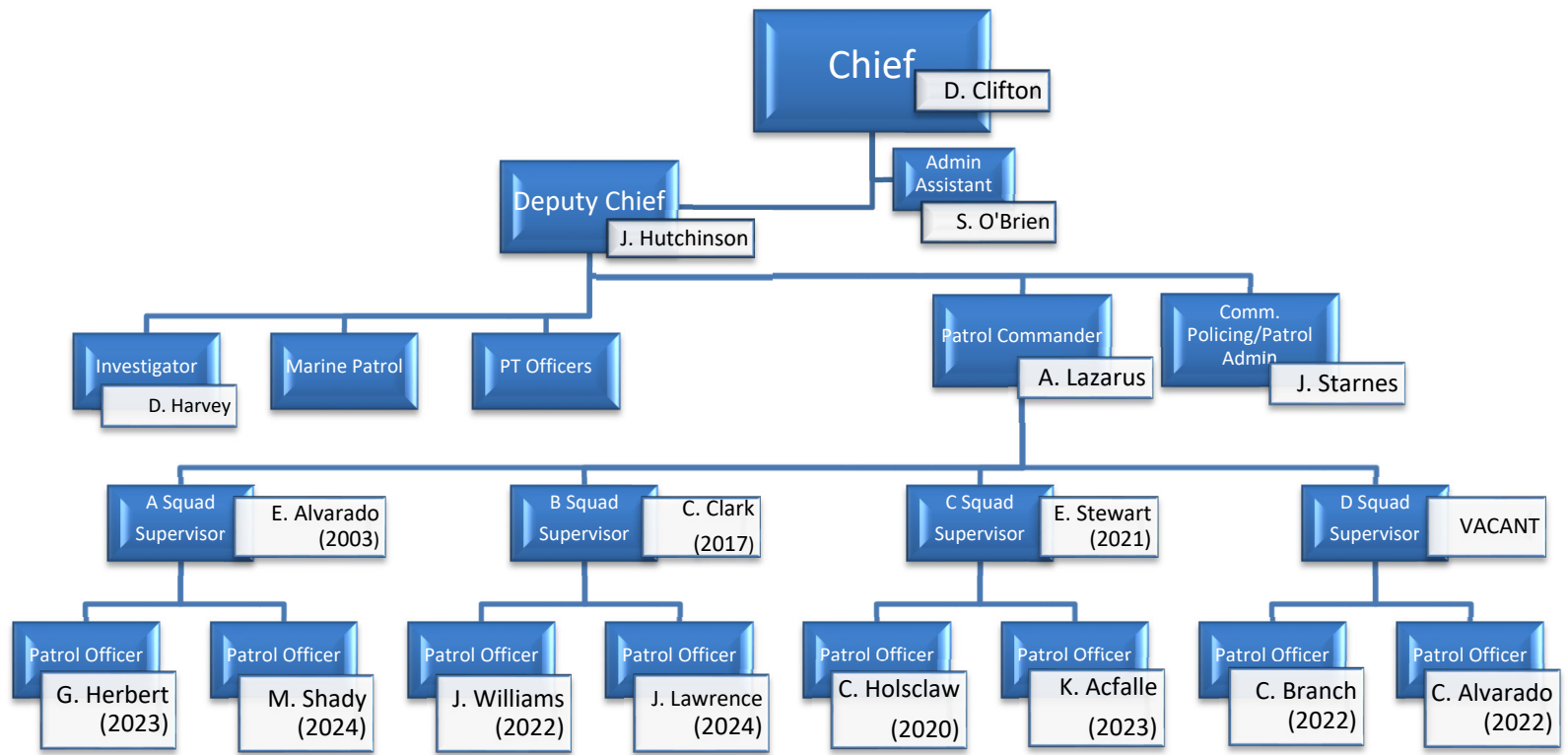
Dave Clifton
Chief of Police

Phone: (252)726-2523
Fax: (252)727-0312

2. Part-Time Pay

The current staffing of our part-time roster has been depleted over the past couple of years, with many of our part-timers aging out or leaving the department due to an inability to comply with departmental standards regarding in-service training or the minimum number of required working hours during the season. Replacing these employees has proven to be more challenging than in previous years. After looking into this, we found that a number of the surrounding law enforcement agencies have started using part-time staff in an increased capacity thus decreasing the pool of local part-time employees. These other agencies are also offering higher pay for their part-time staff, therefore decreasing the appeal of working for our agency (we currently offer \$19.00 per hour for part-time officers). Although our rate of pay is better than it was previously, many of the surrounding towns have increased their pay to attract and retain these officers. Emerald Isle is paying their part-time officers \$25.00 per hour. Part-timers in Pine Knoll Shores earn \$22.89/hour, and Beaufort part-time officers currently make \$22.75/hour but will be reaching \$25.00 per hour soon. These agencies utilize their part-time employees year-round for beach patrols and to assist with short staffing on regular patrol shifts currently we do not.

In the last fiscal year (between July 1, 2022, and June 30th, 2023) we spent \$43,058.81 on part-time salaries. If we increased the part-time pay to \$23.00 an hour, this would add only an additional \$9085.41 to the police department budget to stay competitive with the surrounding jurisdictions. We propose increasing the part-time officer pay to \$23/hour to stay competitive with the surrounding agencies and encourage more applicants for our agency. (NOTE: The number of part-time hours from the last fiscal year was minimal due to the lack of part-time employees. If we want to have an active boat/beach patrol schedule, then additional funds would be needed. Ideally, we would have boat/beach patrol in operation Thursday-Sunday during the summer months.)





Date: February 8, 2024

Attn: Honorable Mayor, Council, Town Manager
Town of Atlantic Beach

From: Chief Mike Simpson

Re: FY 24/25 Budget & Capital Improvement

As we enter the budget planning process for the upcoming fiscal year, I have five items of importance to be presented for discussion. These items range from necessary immediate budget expenditures to planning for future expenses, along with one staffing request for Council consideration. These items are listed in order of priority as outlined below:

1. Fire/EMS Reporting & Station Management Software:

- The Fire Department currently utilizes two reporting and management software subscriptions (**ESO Solutions** for EMS Reporting, Billing and Q/A, and **Emergency Reporting** for Fire Reporting, Inspections, and Station Management). Last year, ESO purchased Emergency Reporting and the ER software and support will cease in December 2024. Currently we pay \$3335.00 per year for our EMS software and \$1633.00 per year for our Fire software. There are three software companies available (ESO, First Due, and Image Trend). We are currently exploring these platforms to determine which package will be the most cost effective and best suits our needs with ease of integration. Regardless of the route we take, we will incur an additional \$6,000-\$7,000 per year increase for EMS and Fire reporting and management software. This increase is impacting every department in Carteret County and most throughout the state as Emergency Reporting was the most predominantly used.

2. Fire Hose:

- For many years, the Fire Department has struggled to keep up with fire hose replacement. 85% of the hose we have was purchased in 2008 with funds awarded from the AFG Grant. Fire hose replacement has been budgeted in small amounts annually since then but has not been enough to keep up with the number of hose going out of service due to age, damage and test failure. On average we budget about \$5,000 per year for fire hose replacement and we are losing about \$7,000 per year in out-of-service hose. We have reached a critical point at which we have a large number of hose that is both beginning to fail and have reached the end of its useful service life. Some of this hose was recently replaced with the purchase of the new Ladder truck and an additional 5 sections of LDH hose that was budgeted. We did apply for the AFG Grant last year to replace the hose and were denied the grant award. We are applying for the AFG Grant for hose replacement again this year, however we need to have a plan in place in case we are denied for the second time in order to avoid having to make emergency purchases and amendments during the next year. The grant application submission date is March 8, 2024, and we won't expect awards to start being announced until December of 2024 through January 2025. With current hose lead times being 8-12 months out for delivery, we will not be able to delay purchases until the grant awards are announced. If part of the hose is purchased within this current budget year and we do get awarded the grant, we would still pursue purchasing the hose requested that will bring us up to our minimum supply and provide some additional spare. With the added 8-12-month lead time, it will also divide our purchases and future replacement schedule over several years. The expected cost for the hose needing replaced is \$48,330 (to include a hydraulic hose coupling press that would allow us to repair and extend the life of fire hose resulting in future

savings). We are working with Finance and the Town Manager to allocate some Contingency funds to cover a portion, if not all of the cost within the current budget year. If we are not able to cover the full costs within this year, we will need to allocate the funds in the upcoming budget, pending the results of the AFG grant. If the grant is received, then the funds would be able to be released.

3. Ambulance Replacement Planning:

- The 2014 Chevy Ambulance is scheduled for replacement in FY 26/27. This ambulance was purchased in then at a cost of approximately \$140,000 including the stretcher and outfitting. Recent purchase costs for ambulances throughout Carteret County range from \$270,000 - \$330,00 with delivery times being one to two years. With continued rising costs and extended lead times on delivery, I feel it would be beneficial to start planning for this expense sooner than later. My recommendation is for FD staff to proceed in the upcoming year with the research and specification process in order to have bid specs to Council for FY 25/26 with a possible purchase contract. If a contract were to be signed in FY 25/26, Council could expect a truck delivery in 2027, at which time a loan could be procured with annual payments beginning a year in the rears. This item requires no funding to be committed over the next couple of years but will get the process moving forward in order to receive an ambulance by the time it is needed.
- NOTE: This purchase would not be the same as the Ladder truck purchase where funds were committed for a pre-pay option. The ambulance is the only major CIP purchase scheduled for the FD within five years with the next expected purchase to be the replacement of the 2008 Heavy Rescue truck in FY 29/30.

4. Request for one additional Staff Position:

Atlantic Beach Fire Department provides a number of services with a limited amount of personnel to include Fire Suppression, Paramedic Level Emergency Medical Services, Technical Rescue, Water and Ocean Rescue as well as an abundance of administrative duties and extracurricular town projects. Factoring in the calls for service, training requirements, and vehicle/equipment maintenance, these duties are quite extensive and time consuming. EMS Billing, Medicaid and Medicare Cost Reporting, billing management with multiple contracts with Prepaid Health Programs and EMS program management have also placed a huge burden on the administrative workload. Currently, all of these duties are being dispersed between the Chief Officers, Shift Captains and Lieutenants which is requiring significant portions of their shift to be dedicated to these tasks resulting in the inability for the crews to adequately interact, train and focus on the emergency services we provide. ABFD operates with four 24 hour on-duty Firefighter/EMT's and the Chief Officer and Deputy Chief Monday through Friday. We are the only municipal department in Carteret County still operating with four personnel to staff both Fire and EMS apparatus. Morehead City, Beaufort, Pine Knoll Shores, Indian Beach, Emerald Isle, Newport and Western Carteret are all operating with a minimum of five or more personnel per shift. At most of these departments, personnel are dually trained, but are dedicated to either Fire or EMS. ABFD personnel are dedicated to all areas of service at all times and manage multiple calls at the same time. This places a huge demand on our available personnel and taxes our ability to maintain a superior level of service. Managing all of these duties makes it difficult and is having an impact on our ability to focus on adequate training to hone knowledge and skills and stay abreast of new technology and methodology for the calls we are responding to.

Additionally, ABFD is the only Department within the Town that does not operate with an Administrative Assistant. Up until 2005, ABFD did have an Admin Assistant as well as a Fire/EMS Chief and a Commander (essentially an Asst. Chief). In 2006 these two positions were consolidated into the Deputy Chief/Fire Marshal position. While we could easily present discussion for the need of five personnel per shift with the workload, NFPA and DOI requirements, it would be difficult for us to justify an additional three personnel (one per shift) year-round, seeing as our greatest need is during the peak tourist season. Likewise, a straight administrative assistant would not be sufficient to fulfill the needs of the department. In an effort to address both operational and administrative deficits, we are proposing the addition of one new 40-hour/week position that would be a fully certified and operational Firefighter/EMT-Paramedic

with Administrative duties. This position would aid in dispersing the administrative workload while also providing an additional operational Firefighter/EMT year-round during the peak call periods of the day to respond to emergency calls and manage multiple calls for service at the same time. As with the Chief and Deputy Chief, this position would also have the ability to flex into shift work as needed during shortages of Part-Time availability.

Over the last four months, we have had one personnel on a modified medical assignment that has been working a 40 hour/week administrative role while their shift was being supplemented with part-time staff. While this individual was not able to perform operationally, the benefits of an additional staff member to help disperse the administrative work were immediately noticeable and proved beneficial. Along with completing a 5 year goal of digitizing all training, fire inspections, pre-planning and personnel records, the additional staff member was able to aid in daily reporting, training certification and records management, fire inspections, EMS reporting and Quality Assurance, EMS supply inventory maintenance and ordering, annual fire hose testing, semi-annual hydrant maintenance and flow testing coordination, department uniform management/procurement and multiple other daily tasks. This has enabled our Shift supervisors more time to be back on the bay floor with the shift crew to guide daily activities, maintain apparatus and emergency equipment, complete additional tasks, conduct more hands-on training and better prepare and coordinate our personnel for emergency response. However, this modified assignment will cease at the end of February at which time all of these duties will be placed back on the shift staff and supervisors and the employee will be out on FMLA leave for an additional three months before returning to shift work.

There is much more discussion to be had about this request, therefore the purpose of this memo is to present it to the Council for consideration during the upcoming budget process. The position proposed is as follows:

- Fire & EMS Supervisor/ EMS Coordinator
 - Grade 19 (position would be between Fire Lieutenant and Fire Captain)
 - Starting Salary: \$58,640
 - FICA, 401K, Retirement, Insurance, Medical: \$29,372
 - Budgetary Impact: Approximately \$90,000 at today's rates.
-
- General Definition of Work: Performs difficult protective service work preparing and conducting Fire/EMS training, responding to calls for service, ordering and maintaining equipment and supplies, preparing and maintaining records and reports, and related work as apparent or assigned. Work is performed under the general direction of the Deputy Chief/Fire Marshal.
-
- Essential Job Functions:
 - Provide standard of care/delivery of services in compliance with Federal, State and County regulations.
 - Supervises field training officer program; trains, develops and evaluates employees' education/skills; teaches classes, lectures and performs demonstrations; ensures that training/continuing education meets the National, State and County Fire/EMS certification requirements.
 - Trains and orients new Fire/EMS personnel; prepares personnel for and arranges exams and recertification; maintains training records; prepares and submits Fire/EMS related educational reporting documentation.
 - Performs quality assurance and improvement of Fire/EMS services and response delivery; maintains approved/licensed status with all Federal, State and other regulatory agencies.
 - Analyzes and reviews response data and calls for service; categorizes responses for reporting requirements.

- Prepares purchase order requests and obtains quotes for equipment, supplies and repairs; orders and maintains equipment and supply inventories; schedules maintenance/repair of equipment as necessary.
- Enters and updates the electronic reporting systems and programs with new personnel.
- Prepares and submits a variety of reports to State and County agencies as required; submits all required data to NEMSIS and PreMIS data collection agencies.
- Assists with planning, developing and implementing emergency medical service plans for multiple responses to natural or man-made disasters; disaster planning and disaster response exercises; coordinate with Town Emergency Manager disaster preparedness and implementation.
- Maintains controlled substance logs and inventory in compliance with Federal and State DEA regulations.
- Performs all duties of a Firefighter/EMT-Paramedic.
- Serves as liaison for the department with Hospitals, Carteret County Emergency Services, medical departments and the community.
- Manages EMS billing and collection correspondence.

Frequency Testing/BDA for Public Safety/Admin Building

In January 2020, a new section of the NC Fire and Building Code went into effect requiring all new buildings 10,000 sq. ft. or greater major renovations of >7,000 sq. ft. to be subjected to radio frequency testing to ensure adequate emergency communications within and throughout buildings. A frequency testing failure would require additional repeaters or BDA's (Bi-Directional Amplifiers) to be installed within the buildings, which can be costly. A frequency test was conducted on the new TOAB Public Safety/Admin Building with portions of the building marginally failing. Real time testing was also conducted by FD and PD staff with handheld radios to determine if the Fire Chief/Code Official would be satisfied with overruling the requirement based on determination of adequate communications. As a result, the installation of additional repeaters or BDAs was exempted with the caveat that if communications proved difficult in the future once the building was complete and occupied, this issue would need to be re-addressed and corrective measures taken. During the two years we have been in the building, we have experienced daily communications issues throughout the building resulting in the inability to adequately transmit or receive unless utilizing the fixed base station.

It is the intent to bring this issue to Council's attention so Council may be aware of the problem in order to consider planning for this expenditure in their mindset. However, there was new information within the last week concerning the upgrade and replacement of the County Emergency Communications system and equipment expected to happen and be running within 18-24 months. This has a huge impact on if, to what extent, and what type of equipment may be necessary within our building. Therefore, it would be considered a waste of funds to proceed with any action at this time.

Respectfully,



Michael J. Simpson
 Fire Chief, Town of Atlantic Beach
 252-726-7361 (Office)
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 252-726-1804 (FAX)
firechief@atlanticbeach-nc.com

P. O. Box 10
 125 West Fort Macon Road
 Atlantic Beach, NC 28512



Phone: (252) 726-2121
 Fax: (252) 726-5115
 financedirector@atlanticbeach-nc.com

TO: Mayor and Town Council

DATE: February 12, 2024

FROM: Sarah Currie
 Finance Director

RE: Financial Statement and Cash & Investment Report

Attached are copies of the Financial Statement and Cash & Investment Report for the month ending January 31, 2024.

Summary of General and Water Funds – January 2024

◆ General Fund			
Revenue Collected	\$ 7,647,909		74.49%
Expenses Spent	\$ 6,709,387		65.35%
◆ Water Fund			
Revenue Collected	\$ 1,276,775		68.83%
Expenses Spent	\$ 995,272		53.65%

Audited June 30, 2023 Governmental Fund Balances

All Governmental Funds	\$6,949,731	
General Fund - Total Fund Balance	\$6,181,343	63.94%
State Statute Reserved	\$649,022	
Powell Bill	\$232,239	
Committed-Fire Truck, Grant Matches	\$2,081,355	
Unassigned G/F Fund Balance	\$3,218,727	33.29%
Beach & Waterway Reserve	\$768,028	

FY 2023-24 Governmental Fund Balances Estimated:

		% of expenses budgeted
June 30, 2023 Audited Unassigned GF Fund Balance	\$3,218,727	31.35%
23-24 Fund Balance Appropriated	-\$325,209	
No longer committed to Water Resources grant match	\$300,000	
June 30, 2024 Estimated Unassigned G/F Fund Balance	\$3,193,518	31.10%
Return of loan proceeds held as collateral for fire truck being built	\$1,200,000	
June 30, 2024 Estimated Unassigned G/F Fund Balance	\$4,393,518	42.79%

On January 24, 2022, Atlantic Beach Town Council passed a resolution setting a policy for the Town to strive to maintain an unassigned fund balance of approximately 35% of expenditures. This is more conservative than the Local Government Commission (LGC) requirement to maintain an unassigned fund balance of 8% of total expenditures.

**Town of Atlantic Beach
January 2024**

Operating Revenue Statement Summary

	Estimated Revenue	Activity This Month	Revenue To Date	Uncollected To Date	Percent Collected
General Fund	10,266,956	1,102,459	7,647,909	2,619,047	74.49%
Other Funds					
Beach & Waterway	750,541	279,928	287,071	463,470	38.25%
Stormwater	56,188	36,609	287,023	-230,835	510.83%
Powell Bill	25,650	1,136	71,979	-46,329	280.62%
Sidewalk	0	750	750	-750	#DIV/0!
Water	1,854,987	163,519	1,276,775	578,212	68.83%
Water System Capital Reserve	34,000	2,465	37,391	-3,391	109.97%
TOTAL REVENUE	12,988,322	1,586,867	9,608,897	3,379,425	73.98%

Operating Expense Statement Summary

General Fund

	Budget Amount	Activity This Month	Expenditure Year to Date	Encumbrance Year to Date	Unencumbered Balance	Percent Spent
Adm Serv - Finance	387,216	30,555	175,120	0	212,096	45.23%
Adm Serv - Admin Support	467,065	36,631	263,041	0	204,024	56.32%
Adm Serv - Gov Body	132,625	4,764	57,205	0	75,420	43.13%
Adm Serv - Debt Service	715,702	674,736	715,810	0	-108	100.02%
Police - Enforcement	2,152,431	146,981	1,169,456	1,014	981,961	54.38%
Police - Emergency Mgmt	9,680	85	1,395	0	8,285	14.41%
Police - Comm Outreach	5,280	0	3,464	0	1,816	65.61%
Fire - Fire	1,896,604	164,523	1,044,668	76,742	775,193	59.13%
Fire - EMS	47,298	10,384	36,281	2,300	8,717	81.57%
Fire - Rescue	12,500	828	6,318	0	6,182	50.54%
Fire - Lifeguards	74,550	912	50,582	0	23,968	67.85%
Building Inspections	65,600	2,388	16,822	0	48,778	25.64%
Planning & Zoning	259,875	18,472	140,882	0	118,993	54.21%
Pub Serv - Public Works	2,785,464	376,195	2,152,523	90,450	542,491	80.52%
Pub Serv - Solid Waste	576,820	43,376	306,712	0	270,108	53.17%
Pub Serv - Roadways	93,753	27,325	81,103	1,189	11,462	87.77%
Pub Serv - Beach Access	117,000	944	63,084	5,876	48,040	58.94%
Comm Events / Recreation	467,493	20,876	219,017	28,333	220,142	52.91%
Total General Fund	10,266,956	1,559,975	6,503,483	205,905	3,557,569	65.35%
			<i>GF Exp & Enc YTD:</i>	6,709,387		

Other Funds

	Budget Amount	Activity This Month	Expenditure Year to Date	Encumbrance Year to Date	Unencumbered Balance	Percent Spent
Beach & Waterway	750,541	-	533,041	-	217,500	71.02%
Stormwater	56,188	-	48,187	-	8,001	85.76%
Powell Bill	25,650	25,650.00	25,650	-	-	100.00%
Sidewalk	-	-	-	-	-	#DIV/0!
Water	1,854,987	137,128.43	909,687	85,584.28	859,715	53.65%
Water System Capital Reserve	34,000	34,000.00	34,000	-	-	100.00%
			<i>WF Exp & Enc YTD:</i>	995,272		
TOTAL EXPENSES	12,988,322	1,756,754	8,054,048	291,489	4,642,785	64.25%

**Town of Atlantic Beach
January 2024**

Capital Project Fund - Circle Boardwalk Renovation Fund 28

REVENUES	Estimated Revenue	Activity This Month	Revenue To Date	Uncollected To Date	Percent Collected
Interest - Investments	-	-	-	-	#DIV/0!
Transfer from GF	-	-	-	-	#DIV/0!
Transfer from Beach & Waterway	246,350	-	128,850	117,500	52.30%
TOTAL REVENUES	246,350	0	128,850	117,500	52.30%

EXPENSES	Budget Amount	Activity This Month	Expenditure Year to Date	Encumbrance Year to Date	Unencumbered Balance	Percent Spent
Advertising	200	-	124	-	76	61.80%
Professional Service	5,690	-	5,690	-	-	100.00%
Engineering	51,890	-	38,108	-	13,782	73.44%
Architect	186,570	-	83,174	94,307	9,089	95.13%
Dept Supplies	2,000	-	1,755	-	245	87.74%
TOTAL EXPENSES	246,350	0	128,850	94,307	23,193	90.59%

**Town of Atlantic Beach
Cash Position
as of January 31, 2024**

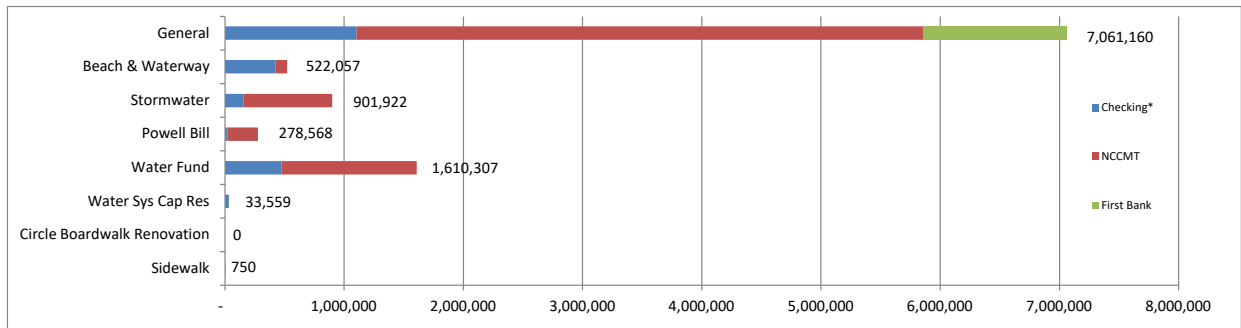
<u>Institution</u>	<u>Type of Account</u>	<u>Rate</u>	<u>January 2024</u>	<u>Maturity Date</u>
First Citizens	Checking (All Funds)	0.10%	\$2,320,089	
General Fund				
NCCMT - GF	Pooled Trust	5.38%	\$4,755,606	
First Bank Loan-Fire Truck	Loan Proceeds	0.03%	\$1,200,492	
Total GF			\$5,956,098	
Beach Nourishment/Channel Fund				
NCCMT - BEACH AND WATERWAY	Pooled Trust	5.38%	\$95,453	
			\$95,453	
Stormwater Fund				
NCCMT - STORMWATER	Pooled Trust	5.38%	\$745,402	
			\$745,402	
Powell Bill Fund				
NCCMT - POWELL	Pooled Trust	5.38%	\$254,976	
			\$254,976	
Water Fund				
NCCMT - WF	Pooled Trust	5.38%	\$1,135,794	
Total WF			\$1,135,794	
			\$10,507,811	



	<u>Checking*</u>	<u>NCCMT</u>	<u>First Bank</u>	<u>Total</u>
General	1,105,063	4,755,606	1,200,492	\$7,061,160
Beach & Waterway	426,605	95,453	-	\$522,057
Stormwater	156,520	745,402	-	\$901,922
Powell Bill	23,592	254,976	-	\$278,568
Water Fund	474,514	1,135,794	-	\$1,610,307
Water Sys Cap Res	33,559	-	-	\$33,559
Circle Boardwalk Renovation	-	-	-	\$0
Sidewalk	750	-	-	\$750
	\$2,220,601	\$6,987,230	\$1,200,492	\$10,408,323

*Checking account balance includes pending payables/receivables

AB Cash Management Plan: No more than 50% shall be invested at any one institution to minimize risk and maintain diversification.



Tax Year	Tax Rate	
2006	0.26	
2007	0.15 (REVAL YR)	
2008	0.125	
2009	0.125	
2010	0.125	
2011	0.17 (REVAL YR)	
2012	0.17	
2013	0.165	
2014	0.165	
2015	0.165 (REVAL YR)	
2016	0.165	
2017	0.165	
2018	0.165	
2019	0.18	increase 1.5 cent for beach nourishment reserve
2020	0.18 (REVAL YR)	
2021	0.20	increase 2.0 cents for public safety facility loan payments
2022	0.20	
2023	0.215	increase 1.5 cents for upcoming fire truck loan pmts and capital expenditures
2024		should have been a reval year, county is delaying for a year due to software change / problems

Year to Date Local ABC Revenue, Beer/Wine Tax, Local Sales Tax, Electric Franchise Tax, Telecom Franchise Tax, Video Franchise Tax, and Powell Bill Receipts

	Quarterly Local ABC Revenue	Annual Beer/Wine	Monthly Local Sales	Quarterly Electric Franchise	Quarterly Telecom Franchise	Quarterly Video Franchise	Annual Powell Bill	
July			196,718					
August			194,514					
September	111,344		180,123	113,243	4,702	14,689	29,364	
October			145,810					
November			153,822					
December	43,256							
January							36,134	
February								
March								
April								
May								
June								
Totals	154,600	-	870,986	113,243	4,702	14,689	65,498	Total Percent Collected: 48%
Budget	290,000	5,200	1,835,000	301,000	15,000	60,000	53,000	
Difference	(135,400)	(5,200)	(964,014)	(187,757)	(10,298)	(45,311)	12,498	(1,335,482)
Percent Collected	53%	0%	47%	38%	31%	24%	124%	

Note: ABC Revenue is received from the County, typically at least three months after-the-fact
 Beer/Wine Tax revenue is received annually in late May/early June
 Local Sales Tax revenue is received two months after-the-fact (ie. In January, we received November's tax revenue)
 Franchise Tax revenues are received three months after-the-fact (ie. In December, we received September's tax revenues)

FY22-23 Local ABC Revenue, Beer/Wine Tax, Local Sales Tax, Electric Franchise Tax, Telecom Franchise Tax, Video Franchise Tax, and Powell Bill Receipts

	Quarterly Local ABC Revenue	Annual Beer/Wine	Monthly Local Sales	Quarterly Electric Franchise	Quarterly Telecom Franchise	Quarterly Video Franchise	Annual Powell Bill	
July			192,530					
August			190,537					
September	95,007		179,941	113,267	4,973	15,258	29,556	
October			162,088					
November			157,471					
December	65,224		130,807	73,845	4,274	15,073		
January			169,540				29,556	
February			140,884					
March	28,443		108,784	92,897	4,051	15,231		
April			165,320					
May			156,743					
June	86,983	6,209	168,056	73,919	3,917	14,666		
Totals	275,657	6,209	1,922,701	353,928	17,215	60,227	59,112	Total Percent Collected: 116%
Budget	200,000	6,200	1,690,000	300,000	18,000	65,000	53,000	
Difference	75,657	9	232,701	53,928	(785)	(4,773)	6,112	362,850
Percent Collected	138%	100%	114%	118%	96%	93%	112%	

FY21-22 Local ABC Revenue, Beer/Wine Tax, Local Sales Tax, Electric Franchise Tax, Telecom Franchise Tax, Video Franchise Tax, and Powell Bill Receipts

	Quarterly Local ABC Revenue	Annual Beer/Wine	Monthly Local Sales	Quarterly Electric Franchise	Quarterly Telecom Franchise	Quarterly Video Franchise	Annual Powell Bill	
July			163,962					
August			149,303					
September	94,066		141,923	103,211	5,350	16,112	25,682	
October			134,522					
November			127,045					
December	49,265		125,097	70,709	4,541	15,934		
January			140,598				33,848	
February			98,488					
March	30,541		112,576	82,544	3,114	16,761		
April			142,375					
May			145,002					
June	99,632	5,406	167,352	69,600	3,990	16,569		
TOTALS	273,504	5,406	1,648,243	326,063	16,995	65,376	59,530	Percent Collected: 114%
BUDGET	185,000	6,400	1,480,000	300,000	16,500	61,000	53,000	
DIFFERENCE	88,504	(995)	168,243	26,063	495	4,376	6,530	293,217

FY20-21 Local ABC Revenue, Beer/Wine Tax, Local Sales Tax, Electric Franchise Tax, Telecom Franchise Tax, Video Franchise Tax, and Powell Bill Receipts

	Quarterly Local ABC Revenue	Annual Beer/Wine	Monthly Local Sales	Quarterly Electric Franchise	Quarterly Telecom Franchise	Quarterly Video Franchise	Annual Powell Bill	
July			141,318					
August			138,750					
September	88,802		110,901	100,644	9,415	19,718	26,453	
October			121,606					
November			113,972					
December	37,110		109,107	65,035	4,811	17,453		
January			123,955				26,453	
February			96,385					
March	24,155		95,464	76,398	4,595	17,640		
April			134,138					
May			133,279					
June	86,890	6,231	137,561	64,247	4,436	17,587		
TOTALS	236,957	6,231	1,456,436	306,324	23,257	72,399	52,906	Percent Collected: 124%
BUDGET	147,000	6,400	1,123,000	300,000	26,000	75,000	57,000	
DIFFERENCE	89,957	(169)	333,436	6,324	(2,743)	(2,602)	(4,094)	420,110

TOWN OF ATLANTIC BEACH DEBT SERVICE SCHEDULE

AMBULANCE - 2018 CHEVY AMBULANCE - BB&T (993300023800005)

PAYMENT DATE	CURRENT RATE	PAYMENT	INTEREST	PRINCIPAL	PRINCIPAL BALANCE
12/6/2018					125,000.00
12/6/2019	3.61	20,527.06	4,512.50	16,014.56	108,985.44
12/6/2020	3.61	20,527.06	3,934.37	16,592.69	92,392.75
12/6/2021	3.61	20,527.06	3,335.37	17,191.69	75,201.06
12/6/2022	3.61	20,527.06	2,714.75	17,812.31	57,388.75
12/6/2023	3.61	20,527.06	2,071.73	18,455.33	38,933.42
12/6/2024	3.61	20,527.07	1,405.50	19,121.57	19,811.85
12/6/2025	3.61	20,527.06	715.21	19,811.85	-
BALANCE		61,581.19	4,192.44	57,388.75	

2021 PUBLIC SAFETY & ADMIN COMPLEX CONSTRUCTION LOAN - FIRST BANK (1200008592)

PAYMENT DATE	CURRENT RATE	PAYMENT	INTEREST	PRINCIPAL	PRINCIPAL BALANCE
1/26/2021					7,000,000.00
1/26/2022	2.39	562,175.78	169,623.62	392,552.16	6,607,447.84
1/26/2023	2.39	562,175.78	160,111.32	402,064.46	6,205,383.38
1/26/2024	2.39	562,175.78	150,368.51	411,807.27	5,793,576.11
1/26/2025	2.39	562,175.78	140,389.62	421,786.16	5,371,789.95
1/26/2026	2.39	562,175.78	130,168.92	432,006.86	4,939,783.09
1/26/2027	2.39	562,175.78	119,700.55	442,475.23	4,497,307.86
1/26/2028	2.39	562,175.78	108,978.52	453,197.26	4,044,110.60
1/26/2029	2.39	562,175.78	97,996.67	464,179.11	3,579,931.49
1/26/2030	2.39	562,175.78	86,748.70	475,427.08	3,104,504.41
1/26/2031	2.39	562,175.78	75,228.18	486,947.60	2,617,556.81
1/26/2032	2.39	562,175.78	63,428.49	498,747.29	2,118,809.52
1/26/2033	2.39	562,175.78	51,342.88	510,832.90	1,607,976.62
1/26/2034	2.39	562,175.78	38,964.40	523,211.38	1,084,765.24
1/26/2035	2.39	562,175.78	26,285.97	535,889.81	548,875.43
1/26/2036	2.39	562,175.78	13,300.35	548,875.43	-
BALANCE		7,308,285.14	1,102,901.76	6,205,383.38	

FIRE TRUCK - 2024 E-ONE HP78' LADDER TRUCK - FIRST BANK (1200009580)

PAYMENT DATE	CURRENT RATE	PAYMENT	INTEREST	PRINCIPAL	PRINCIPAL BALANCE
9/30/2022					1,200,000.00
10/1/2022	3.35	1,234.83	1,228.33	6.50	1,199,993.50
11/1/2022	3.35	3,461.64	3,461.64		1,199,993.50
12/1/2022	3.35	3,349.99	3,349.99		1,199,993.50
1/1/2023	3.35	3,461.64	3,461.64		1,199,993.50
2/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
3/1/2023	3.35	3,126.67	3,126.67		1,199,993.50
4/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
5/1/2023	3.35	3,350.00	3,350.00		1,199,993.50
6/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
7/1/2023	3.35	3,350.00	3,350.00		1,199,993.50
8/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
9/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
10/1/2023	3.35	3,350.00	3,350.00		1,199,993.50
11/1/2023	3.35	3,461.67	3,461.67		1,199,993.50
12/1/2023	3.35	3,350.00	3,350.00		1,199,993.50
2/1/2024	3.35	112,560.44	6,923.33	105,637.11	1,094,356.39
2/1/2025	3.35	112,560.44	37,170.34	75,390.10	1,018,966.29
2/1/2026	3.35	112,560.44	34,609.69	77,950.75	941,015.54
2/1/2027	3.35	112,560.44	31,962.07	80,598.37	860,417.17
2/1/2028	3.35	112,560.44	29,224.53	83,335.91	777,081.26
2/1/2029	3.35	112,560.44	26,394.00	86,166.44	690,914.82
2/1/2030	3.35	112,560.44	23,467.33	89,093.11	601,821.71
2/1/2031	3.35	112,560.44	20,441.26	92,119.18	509,702.53
2/1/2032	3.35	112,560.44	17,312.41	95,248.03	414,454.50
2/1/2033	3.35	112,560.44	14,077.28	98,483.16	315,971.34
2/1/2034	3.35	112,560.44	10,732.27	101,828.17	214,143.17
2/1/2035	3.35	112,560.44	7,273.65	105,286.79	108,856.38
2/1/2036	3.35	112,553.94	3,697.56	108,856.38	(0.00)
BALANCE		1,483,714.23	283,720.73	1,199,993.50	

Total GF	BALANCE	8,853,580.56	1,390,814.93	7,462,765.63	
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TOWN OF ATLANTIC BEACH DEBT SERVICE SCHEDULE

WATER FUND: 2017 SCADA EQUIPMENT FOR UTILITY SYSTEM- BB&T (993300023800004)

PAYMENT DATE	CURRENT RATE	PAYMENT	INTEREST	PRINCIPAL	PRINCIPAL BALANCE
3/24/2017					250,000.00
3/24/2018	2.49	39,358.87	6,225.00	33,133.87	216,866.13
3/24/2019	2.49	39,358.87	5,399.97	33,958.90	182,907.23
3/24/2020	2.49	39,358.87	4,554.39	34,804.48	148,102.75
3/24/2021	2.49	39,358.87	3,687.76	35,671.11	112,431.64
3/24/2022	2.49	39,358.87	2,799.55	36,559.32	75,872.32
3/24/2023	2.49	39,358.87	1,889.22	37,469.65	38,402.67
3/24/2024	2.49	39,358.87	956.20	38,402.67	-
Total WF	BALANCE	39,358.87	956.20	38,402.67	

BEACH & WATERWAY FUND - Fund 21

	Occupancy Tax Funded			Tax Funded - Nourishment (& Interest on Investments)			Tax Funded - Beach (seasonal sand adjustments, sand fencing, trashcans, signage, etc)			Tax Funded - Dredging			Tax Funded - Beach Access Improvements (Grant Matches)			TOTAL
	Revenue	Expense	Balance	Revenue	Expense	Balance	Revenue	Expense	Balance	Revenue	Expense	Balance	Revenue	Expense	Balance	
6/30/2003	100,000		\$100,000													\$100,000
6/30/2004	100,562	2,937	\$197,625													\$197,625
6/30/2005	104,244	2,167	\$299,702													\$299,702
6/30/2006	113,793	-	\$413,495													\$413,495
6/30/2007	14,880	87,751	\$340,624													\$340,624
6/30/2008	14,701	-	\$355,325													\$355,325
6/30/2009	6,095	27,040	\$334,380													\$334,380
6/30/2010	1,177	-	\$335,557													\$335,557
6/30/2011	1,345	-	\$336,902													\$336,902
6/30/2012	1,133	-	\$338,035													\$338,035
6/30/2013	970	103,177	\$235,828													\$235,828
6/30/2014	645	-	\$236,473													\$236,473
6/30/2015	553	21,059	\$215,967													\$215,967
6/30/2016	518	-	\$216,485													\$216,485
6/30/2017	523	-	\$217,008													\$217,008
6/30/2018	2,167	-	\$219,175													\$219,175
6/30/2019	4,562	29,515	\$194,222													\$194,222
6/30/2020		78,672	\$115,550	236,308	-	\$236,308	-	-	\$0	-	-	\$0	23,926	-	\$23,926	\$375,784
6/30/2021		115,550	\$0	100,676	-	\$336,984	61,000	-	\$61,000	50,000	-	\$50,000	50,000	31,920	\$42,006	\$489,990
6/30/2022				100,789	-	\$437,773	73,000	50,000	\$84,000	50,000	50,000	\$50,000	50,000	46,304	\$45,702	\$617,475
6/30/2023				113,403	138,850	\$412,326	76,000	-	\$160,000	50,000	-	\$100,000	50,000	-	\$95,702	\$768,028
6/30/2024 budgeted				100,000	512,326	\$0	79,500	145,174	\$94,326	50,000	93,041	\$56,959	50,000	-	\$145,702	\$296,987

*FY 22-23 - 128,850 redirected to Boardwalk Fund, 10,000 to GF for land purchase

*FY 23-24 - 117,500 redirected to Boardwalk Fund, 490,000 to GF for land purchase (204,826 nourishment, 95,174 beach costs)

Name Changes:

FY2002-03 Beach Nourishment/Access Capital/Special Revenue Reserve Fund created. Session SL permitted \$100,000 Occupancy Tax to be distributed annually for four years to AB to be used "to promote travel and tourism and for tourism-related expenditures" such as beach nourishment and public beach accesses. Interest earned on the \$400,000 is to be maintained in this fund.

7/1/2019 Renamed from Beach Nourishment to Beach Nourishment/Channel Dredging/ Beach Access Reserve Fund. The \$194,222 balance at 6/30/2019 will continue to be used solely as originally permitted. Council is further adding to this Special Revenue Fund to fund other beach type activities beginning FY2019-20. Council voted to transfer \$234,000, or 1.5 ¢ of the 18¢ property tax levy, from the General Fund to the Beach Nourishment/Channel/Access Fund for future projects.

7/1/2020 Renamed to the Beach & Waterway Fund. The equivalent of 1.5 ¢ of the 18¢ property tax levy (\$261,000) shall be transferred from General Fund to the Beach & Waterway Fund and earmarked for the following: \$100,000 held in reserve for future beach nourishment projects, \$61,000 held in reserve for other beach costs (seasonal sand adjustments, sand fencing, trashcans, signage, etc), \$50,000 toward dredging, and \$50,000 toward beach access improvements.

11/22/2021 Officially closed the Capital Project Beach Nourishment Fund as those initial funds were exhausted prior to 6/30/2021 and Opened as the Beach & Waterway Special Revenue Fund for beach nourishment projects, beach costs such as seasonal sand adjustments, sand fencing, trashcans, and signage, dredging, and beach access improvements.

6/27/2022 Redirected a portion of the nourishment reserves to the newly approved Circle Boardwalk Fund for the architectural fees of \$174,307, effective FY22-23, 07/01/2022.

FUND BALANCE HISTORY

Audited June 30, 2021 Governmental Fund Balances:

All Governmental Funds	\$9,991,943	
General Fund - Total Fund Balance	\$4,566,288	62.71%
State Statute Reserved	\$715,776	
Powell Bill	\$247,782	
Unassigned G/F Fund Balance	\$3,602,730	49.47%
Beach Nourishment Reserve	\$489,990	
Public Safety & Admin Complex Fund	\$4,935,665	

Audited June 30, 2022 Governmental Fund Balances

All Governmental Funds (excludes ARP restricted funds)	\$5,789,683	
General Fund - Total Fund Balance	\$5,075,582	65.74%
State Statute Reserved	\$714,795	
Powell Bill	\$170,142	
Committed-Fire Truck	\$1,206,737	
Unassigned G/F Fund Balance	\$2,983,908	38.65%
Beach & Waterway Reserve	\$617,475	
Public Safety & Admin Complex Fund	\$96,300	
ARP Fund -interest earned (unrestricted)	\$326	

ARP Restricted Funds

\$240,935

Audited June 30, 2023 Governmental Fund Balances

All Governmental Funds	\$6,949,731	
General Fund - Total Fund Balance	\$6,181,343	63.94%
State Statute Reserved	\$649,022	
Powell Bill	\$232,239	
Committed-Fire Truck, Grant Matches	\$2,081,355	
Unassigned G/F Fund Balance	\$3,218,727	33.29%
Beach & Waterway Reserve	\$768,028	

Estimated Fund Balances for Other Funds:

Powell Bill June 30, 2017 Fund Balance	\$243,827
Powell Bill June 30, 2018 Fund Balance	\$267,838
Powell Bill June 30, 2019 Fund Balance	\$265,550
Powell Bill June 30, 2020 Fund Balance	\$277,421
Powell Bill June 30, 2021 Fund Balance	\$247,782
Powell Bill June 30, 2022 Fund Balance	\$170,142
Powell Bill June 30, 2023 Fund Balance	\$232,239
Powell Bill June 30, 2024 Fund Balance (estimated)	\$272,087

Beach Nourishment June 30, 2017 Fund Balance	\$217,008
Beach Nourishment June 30, 2018 Fund Balance	\$219,175
Beach Nourishment June 30, 2019 Fund Balance	\$194,222
Beach/Waterway June 30, 2020 Fund Balance	\$375,784
Beach/Waterway June 30, 2021 Fund Balance	\$489,990
Beach/Waterway June 30, 2022 Fund Balance	\$617,475
Beach/Waterway June 30, 2023 Fund Balance	\$768,028
Beach/Waterway June 30, 2024 Fund Balance (estimated)	\$296,987

Water Fund - Unrestricted net position at 6/30/17	\$1,270,412
Water Fund - Cash Flow Statement Ending Balance -6/30/17	\$1,096,872
Water Fund - Unrestricted net position at 6/30/18	\$1,323,752
Water Fund - Cash Flow Statement Ending Balance -6/30/18	\$1,262,020
Water Fund - Unrestricted net position at 6/30/19	\$1,346,283
Water Fund - Cash Flow Statement Ending Balance -6/30/19	\$1,318,735
Water Fund - Unrestricted net position at 6/30/20	\$1,334,672
Water Fund - Cash Flow Statement Ending Balance -6/30/20	\$1,288,157
Water Fund - Unrestricted net position at 6/30/21	\$1,611,855
Water Fund - Cash Flow Statement Ending Balance -6/30/21	\$1,582,628
Water Fund - Unrestricted net position at 6/30/22	\$1,853,461
Water Fund - Cash Flow Statement Ending Balance -6/30/22	\$1,835,196
Water Fund - Unrestricted net position at 6/30/23	\$1,931,291
Water Fund - Cash Flow Statement Ending Balance -6/30/23	\$1,940,664
Water Fund - Unrestricted net position at 6/30/24	unavailable
Water Fund - Cash Flow Statement Ending Balance -6/30/24	unavailable

Stormwater Fund Bal (incl within WF) -6/30/17	\$ 227,921
Stormwater Fund Bal (incl within WF) -6/30/18	\$ 58,514
Stormwater Fund Bal (incl within WF) -6/30/19	\$ 90,611
Stormwater Fund Bal (incl within WF) -6/30/20	\$ 189,786
Stormwater Fund Bal (incl within WF) -6/30/21	\$ 346,341
Stormwater Fund Bal (incl within WF) -6/30/22	\$ 578,768
Stormwater Fund Bal (incl within WF) -6/30/23	\$ 708,223
Stormwater Fund Bal (incl within WF) -6/30/24 (estimated)	\$ 1,102,036

FY 2023-24 Governmental Fund Balances Estimated:

% of expenses budgeted

June 30, 2023 Audited Unassigned GF Fund Balance	\$3,218,727	31.35%
23-24 Fund Balance Appropriated	-\$325,209	
No longer committed to Water Resources grant match	\$300,000	
June 30, 2024 Estimated Unassigned G/F Fund Balance	\$3,193,518	31.10%
Return of loan proceeds held as collateral for fire truck being built	\$1,200,000	
June 30, 2024 Estimated Unassigned G/F Fund Balance	\$4,393,518	42.79%

Water Cap Res Fund Bal (incl within WF) -6/30/19	\$ 42,772
Water Cap Res Fund Bal (incl within WF) -6/30/20	\$ 26,916
Water Cap Res Fund Bal (incl within WF) -6/30/21	\$ 54,826
Water Cap Res Fund Bal (incl within WF) -6/30/22	\$ 43,010
Water Cap Res Fund Bal (incl within WF) -6/30/23	\$ 30,168
Water Cap Res Fund Bal (incl within WF) -6/30/24 (estimated)	\$ 33,528

21-Beach & Waterway Planning:

\$ 768,028	Beach & Waterway reserve at 6/30/2023
\$ 279,500	Budgeted revenue in FY23-24 (Xfr from GF)
\$ (93,041)	\$50,000 Dredging xfr x2 (used w/ grant as 1/4 match)
\$ (50,000)	\$50,000 Beach strand costs xfr
\$ (190,000)	Boardwalk East Land Acquisition (xfr to 10)
\$ (300,000)	Boardwalk West Land Acquisition (xfr to 10)
\$ (103,397)	Boardwalk Architect Fees (xfr to 28)
\$ (76)	Advertising (xfr to 28)
\$ (13,782)	Boardwalk Engineering Fees (xfr to 28)
\$ (245)	Boardwalk Dept Supplies (xfr to 28)
???	Boardwalk Construction (xfr to 28)

23-Powell Bill Planning:

\$ 232,239	PB at 6/30/2023
\$ 65,498	Actual rev in FY23-24
\$ -	WFM/Charlotte crosswkw eng
?????	WFM/Charlotte crosswkw const
?????	Glenn St Pervious Paving
\$ (25,650)	Paving repairs around town

22-Stormwater Planning:

\$ 708,223	Stormwater reserve at 6/30/2022
\$ 450,000	Budgeted revenue in FY23-24
\$ (48,187)	Henderson/Cooper/Asbury Drainage project construction
?????	Bayview project const
?????	Bayview project engineer
\$ (8,000)	Water Quality Testing

\$ 296,987 Est 6/30/24 balance

\$ 272,087 Est 6/30/24 balance

\$ 1,102,036 Est 6/30/24 balance

FY2023-24 Budget Amendment Detail

General Fund Only	Over-collected Revenues	FEMA Revenues	Grant Revenues	Fund Balance Appropriated	Water Transfer	Stormwater Transfer	P.Bill Transfer	Beach & Waterway Transfer	ARP Transfer	Explanation
7/24/2023	1,000			-	70,000			100,000		Facebook ad donation, park gate, rec water testing
7/24/2023				4,271		8,000				Park NLI Design
7/24/2023				34,617						Paving Repairs
8/28/2023							25,650			Fee schedule change only
8/28/2023	3,400									NNO and PD Donations
8/28/2023	450,000			212,676		55,538		240,000		PO and project rollovers
9/25/2023				100		(7,350)				NNO donation, reduce sw transfer for Asbury project
10/11/2023	200,000							300,000		Water Resources Grant match, on 8/28, tabled to 9/25, tabled to 10/11 and approved on 10/11/23
10/23/2023	8,788							(6,959)		FB ad donation, Fire part time salaries due to light duty, close out unused portion of dredging grant
10/23/2023				5,845						NCSU NLI park plan required updated survey
11/27/2023	1,135			67,700						Paving Assessment, Camera CO, New Bern retaining wall, Moonlight Bay Dr boat access, W Bogue Sound Dr Boat Access, Insurance Proceeds for pw bay door damage
12/18/2023	37,745									Ladder truck change orders and radios
1/22/2024	750									Create sidewalk fund and transfer \$750 received earlier in FY to new fund
1/22/2024	14,500									Fund capital outlay with investment interest, move 10k earnest money to FY 23-24
TOTALS	717,318	0	0	325,209	70,000	56,188	25,650	633,041	0	

Beginning Budget: **8,609,550** (Includes: \$0 FB, \$100,000 BN, \$70,000 Water)
 717,318 Amendments using over-collected revenues
 0 Amendments using FEMA revenues
 0 Amendments using grant revenues
 325,209 Amendments using fund balance
 0 Amendments using Water Fund transfers
 56,188 Amendments using Stormwater transfers
 25,650 Amendments using Powell Bill transfers
 533,041 Amendments using Beach Nourishment transfers
 0 Amendments using ARP transfers

Ending Budget: **10,266,956**

Difference: **1,657,406**

Utility bill rate history

	Jul-23	Nov-22	Jul-22	Nov-21	Nov-20	Nov-19	Oct-18	Oct-16	Nov-15	Jul-14
Minimum Gallons	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000	4,000
Overage Rate per 1,000 gallons	6.30	5.30	4.90	4.90	4.25	4.05	3.75	3.25	3.00	3.00
Minimum Bill	16.75	13.75	13.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75
Stormwater Fee	6.00	6.00	6.00	6.00	6.00	6.00	4.00	4.00	4.00	4.00
Solid Waste Fee	14.60	14.60	14.60	14.60	14.60	14.60	14.60	14.60	14.60	14.60
Debris/White Good Fee	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	41.35	36.35	36.35	34.35	34.35	34.35	32.35	32.35	32.35	32.35

*based on 3/4 inch meter size which accounts for the vast majority of our existing meters. Rates for other meter sizes increased as well

2024 Banner Inventory

Morgan's thoughts on banners: I would like to order a new set of sunbrella fabric American Flag banners for the Causeway. They are \$94 each, and we would need 36 (\$3,384 total). In the future, I would also like to order a new set of AB logo banners on sunbrella fabric for the Causeway because they can be used in any season.

In Need of Replacement:



American Flag Banners

Location: Causeway

Material: Vinyl

Condition: extremely brittle and tattered



Alternating White & Blue AB Logo Banners

Location: Causeway

Material: Vinyl

Condition: extremely brittle and tattered



Alternating White & Blue "Welcome" Banners

Location: Causeway

Material: Vinyl

Condition: extremely brittle and tattered

Causeway Banners



Burgundy Fall Banners

Location: Causeway

Material: Sunbrella

Condition: Good condition



BMF Banners

Location: Causeway

Material: Vinyl

Condition: Good condition



Alternating Boat Banners

Location: Causeway

Material: Sunbrella

Condition: Good condition

Bridge Banners



ABKMT Banners

Location: Bridge

Material: Sunbrella

Condition: Good condition



"A Great Place To Be" Banners

Location: Bridge

Material: Sunbrella

Condition: Good condition



Burgundy Christmas Tree Banners

Location: Bridge

Material: Sunbrella

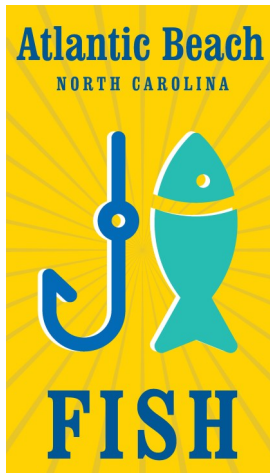
Condition: Good condition

Yellow "Shop, Dine, Stay, Play, Fish" Banners

Location: Bridge

Material: Sunbrella

Condition: Good condition



Park Update

Splash Pad: The system needs to be evaluated by a professional splash pad company who can make recommendations on how to upfit it to keep it going for a few more years. The local pool stores are not specialized enough to do rehab on the system.

Skatepark: The skatepark railings have some areas where they are severely rusted. Before we look into rail replacement, Public Works is going to use their new sand blaster to remove the rust and hopefully weld the areas ourselves. We would then repaint them.

Merry-Go-Round: The previous 10ft merry-go-round had to be removed because of extreme rust both on the handrails and the underside mechanics. Replacement of a merry-go-round of the same size and style (quotes below) would be between \$7,500 and \$8,500. We also have the option to order a smaller one in the \$4,000 price range.



Supersonic Spinner Merry Go Round

~~\$6,408.00~~ **\$7,567.00**



10-Foot Kaleidoscopic Merry-Go-Round

\$8,368.00

I (Morgan) would recommend replacing the merry-go-round with a Gaga Ball area. It is the same size and shape as the mulch circle that is already present and we have the supplies on hand already to install a Gaga Ball pit without needing to purchase anything. Gaga Ball is extremely popular (1 court at Fort Benjamin in Newport and 1 court at Camp Albemarle) and would be a fun and inexpensive place holder until we can begin Phase 1 of the NLI playground plan. Photo below.



Mini-Golf: The majority of the greens at the mini-golf course are in good condition. There are 7 holes that need repair ranging from minor to more severe. In 2022, we resurfaced 5 mini-golf holes through Eastman's in Morehead City at a cost of \$10,857. While I think they did their best, the work was not great. Two of the five holes are already having issues (photos below). We would need to schedule future repairs with a company that specializes in mini-golf surfacing.



Hole #6
Minor carpet issue



Hole #7
Minor carpet issue



Hole #12
Moderate carpet issue
Redone by Eastman's in 2022



Hole #13
Minor carpet issue



Hole #14
Severe carpet issue



Hole #17
Severe carpet issue
Redone by Eastman's in 2022



Hole #18
Moderate carpet issue

Basketball Court: The basketball court is in good condition. The only complaint we receive is that b-balls go into the pond. This issue can be resolved easily by moving the goal to the other end of the court so that shots are taken in the direction of the field and not the pond.

Merchandise Update:

February 2024 Inventory	Starting Qty.	Current Qty.
Men's PFG Shirts	25	14
Women's PFG Shirts	12	9
Navy Tumblers	60	41
White Tumblers	60	29
Flags	30	7
Hats	100	65
Koozies	125	88
Ornaments	100	0

The PFG's are selling very slowly. Rather than restocking them after we sell out, I would like to pursue sun shirts like the ones shown below. We could order now and have them in stock for spring/summer.



**CUSTOM UPF 50+ SUN
PROTECTION SHIRTS -
PERSONALIZED WITH YOUR
DESIGN OR LOGO**



PROJECT TITLE ATLANTIC BEACH BOARDWALK	CLIENT Town of Atlantic Beach PO Box 15 • Atlantic Beach, NC 1500 Atlantic Avenue Atlantic Beach, NC 28512 Phone: 910.281.1111 www.atlanticbeach.com	DESIGN TEAM DESIGN ARCHITECT KUTONUTUK 10000 Highway 101 Charlotte, NC 28226 T: 704.366.0732 F: 704.366.0733 www.kutonutuk.com	ARCHITECT OF RECORD Sutton Clarke Architects, PA 500 Commonwealth Fayetteville, NC 28404 T: 910.321.2000 F: 910.321.2000 www.suttonclarke.com	LANDSCAPE ARCHITECT Landscape 100 Pine St., Suite 301 Wilmington, NC 28401 T: 910.321.8189 F: 910.321.8189 www.slgkdesign.com	STRUCTURAL ENGINEERING Sutton-Design 404 Westmore St., Suite 210 Raleigh, NC 27601 T: 919.873.1111 F: 919.873.1111 www.sutton-design.com	CIVIL ENGINEERING Sutton-Design 101 N. W. Hwy. 262, 20007 Wilmington, NC 28401 T: 910.321.8189 F: 910.321.8189 www.sutton-design.com	MEP ENGINEERING Sutton-Design 101 N. W. Hwy. 262, 20007 Wilmington, NC 28401 T: 910.321.8189 F: 910.321.8189 www.sutton-design.com	PROJECT LOCATION [Map showing location in Atlantic Beach, NC]	100% Schematic Design INDEX SHEET A000
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1



2

The Crystal Necklace - A new public Boardwalk for Atlantic Beach, NC

[competition text]

The Crystal Necklace, contemplates the boardwalk as the anchor of a linked series of public spaces and amenities and is both pragmatic and efficient while also emphasizing accessibility and exceptional experiences for residents and visitors alike within the already beautiful community in which it serves. The new boardwalk, amenities, and public spaces will provide an opportunity to not only strengthen the rich history and life of the community, but also to meet the needs of future expansion and growth while addressing environmental challenges for a vibrant coastal community. The proposal consists of four key elements: 1) The Boardwalk - a two-part system consisting of an upper, level, raised and level boardwalk located outward of the existing sea wall and extending to meet the natural dunes at either end, and a lower boardwalk at-grade, consisting of paving and signage that extends inward toward walking and cycling paths, amenities, and The Point. The upper boardwalk is 10' wide and raised 30" to meet the 11' storm surge requirement, aiding accessibility, avoiding negative impacts on adjacent property privacy, while allowing delightful vegetation, and natural sand accumulation between. 2) The Alfred B. Cooper Park - the existing and improved central public park and gateway to the beach and boardwalk is the site of The Cove - a proposed area of native live oak trees that will bring much needed shade and an ecological buffer to the area. The Diamond - a 10'x50' multifunctional pavilion & performance space, visitor rest area, and an elevated viewing platform that is connected directly to the boardwalk, as well as space designated for restrooms and public art in a central location. 3) The Crossing - a new welcoming gateway and amenity for visitors at the end of the boardwalk, consisting of a single level building that provides bathrooms, restrooms, a shaded beach viewing area, a small kiosk for snacks or other beach supplies, and a gazebo in an area that doubles as a splash area for kids, and sports. 4) The Point - a public park and welcoming location for the neighborhood and flexible event space with native species trees, vegetation, and seating area for shade and protection while also serving to mitigate flooding and through permeable surfaces and drainage. Integrated within these four key components in the Crystal Necklace are historic markers directly embedded in the boardwalk and seating areas, as well as designated spaces for public art. Together, these new spaces and amenities provide an opportunity for Atlantic Beach to not only create iconic and timeless destinations for residents and visitors alike, but to strengthen existing urban, social, cultural, and ecological networks.

Project Team

KUTONUTUK Design: Kotonutuk, Durham, NC Team: Kotonutuk, Durham, NC www.kutonutuk.com	Sutton-Design Architectural: Sutton-Design, Raleigh, NC www.sutton-design.com	Sutton-Design Civil Engineering: Sutton-Design, Raleigh, NC www.sutton-design.com	Sutton-Design MEP Engineering: Sutton-Design, Raleigh, NC www.sutton-design.com
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Project Schedule

08/19	SD draft package to client
09/24	Meeting to review 019 package
09/12	75% SD
09/14	Presentation to Town Council Work session
09/28	100% SD presented Town Council Meeting
10/30	Phase 1 Construction Documents
12/09	Phase 1 Bidding/Negotiation
Jan-May '23	Construction Administration

3

Summary of Comments from 07/12-07/13 meetings

<p>General</p> <ul style="list-style-type: none"> View from Causeway Bridge - how does BNLK scheme impact views? Who is this for? Public Capacity <p>Permitting</p> <ul style="list-style-type: none"> DOT 60 setback from sea wall. <p>Costs</p> <ul style="list-style-type: none"> Height of upper boardwalk vs seawall + costs for railings <p>Programming</p> <ul style="list-style-type: none"> Dog friendly? No dogs? Plague alternatives: restful, food Beach Volleyball: keep courts NO orientation. Add or preserve existing Consider alternative to businesses (eg. Multi-Use/Drinking vs on-site shop) No food truck spaces next to Crab's Claw Kiosks for beach wheelchair program Programming for kids (seawall and jet sports). Look at oceans Poles for strollers to have lunch? Storage space for equipment? <p>Boardwalk</p> <ul style="list-style-type: none"> Lighting at Boardwalk for security. But not to affect turtle habitats (PlayOut Turtle session) Shading needed - Synthetic shading structures in Cove? Accessories/lookouts to boardwalk What at end of boardwalk? Permitting w/ dunes at each end Beach wheel chair access <p>ABC Park</p> <ul style="list-style-type: none"> Maintenance of park with different materials. Synthetic Shade structures <p>Vegetation</p> <ul style="list-style-type: none"> Indigenous veg at jet meadow (look to this for pa ideas) 	<p>Pavilion</p> <ul style="list-style-type: none"> Pavilion - protection from rain event. Is height necessary? no need for lighting? Pavilion other options? Old pavilion was rectangle with long axis parallel to beach Flat slabs, level in sand? Pavilion - needs more "character". Reference to old circle... Not old pavilion - Position of pavilion w/ setback (DOT) Cable railings. <p>Bathhouse</p> <ul style="list-style-type: none"> Spec: Field of bathroom - clearly Making Station as opposed to splash pad AC in WC <p>Parking</p> <ul style="list-style-type: none"> Parking spaces existing vs new <p>Beach</p> <ul style="list-style-type: none"> Dune grass ok to replace sand fences <p>Maintenance / Service / Safety</p> <ul style="list-style-type: none"> Main trash cans needed Trash after dark a big problem. Lighting will help. Lighting of Boardwalk for security. But not to affect turtle habitats (PlayOut Turtle session) Blowing Sand - impact on design - maintenance. More vegetation along edge makes maintenance more difficult. Landscape friendly vegetation Need large vehicle access to beach at least one spot. Walkways need to be remade. Volleyball nets Crab Claw - Noise complaints
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4

PROJECT INFORMATION											
GROUP	NO. OF SHEETS	DESIGN CATEGORY	SUBJECT MATTER						JOB NO.		
NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS
1	1	1	1	1	1	1	1	1	1	1	1

JOB IS SUBJECT INFORMATION								
CODES	ZONING	LAND USE	PARKS	OCCUPANCY	PARKING SIZE	REQUIRED SETBACKS	MAX. ALLOW. HGT. FT.	PROPOSED JOBS ON LOT
2022 425BC	QRA, CRB	2VC	NA	NA	80,500 SF	50 SETBACK FROM DCM (STATE LINE)	NA	RENOVATION OF EXISTING BOARDWALK, CONSTRUCTION OF NEW BOARDWALK @ 4'-0" ABOVE EXISTING GRADE, NEW BATHHOUSE, EVENT PAVILION, AND PUBLIC LANDSCAPE INCLUDING FOUNDATION, MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS TO BE DESIGNED, BUILT BY QUALIFIED SUBCONTRACTOR.

MATERIALS LEGEND		SYMBOLS LEGEND		RCP LEGEND	
1	2	1	2	1	2

LANDSCAPE ARCHITECT	
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LANDSCAPE ARCHITECT	228 N. Front St., Suite 301
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STRUCTURAL ENGINEERING	1000 Colonial Road
STRUCTURAL ENGINEERING	1000 Colonial Road

MEP ENGINEERING	
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MEP ENGINEERING	1000 Colonial Road
MEP ENGINEERING	1000 Colonial Road

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NOTES + JOB INFORMATION

A001

5

GROSS AREA SITE COVERAGE	
AREA	AREA
LOWER BOARDWALK	25,350 SF
UPPER BOARDWALK	13,400 SF
BATHHOUSE	1,700 SF
THE CROSSING	10,500 SF
ABC PARK (FUTURE PHASE)	17,200 SF
TOTAL	68,150 SF

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FAR & SITE COVERAGE

A002

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Circulation, ADA, & Life Safety Diagram

A003

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DEMOLITION & PRESERVATION PLAN

L101

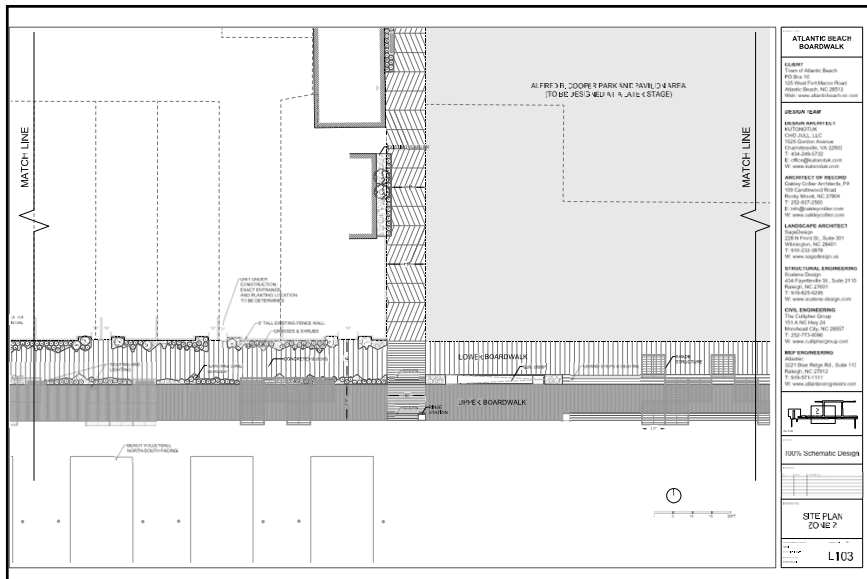
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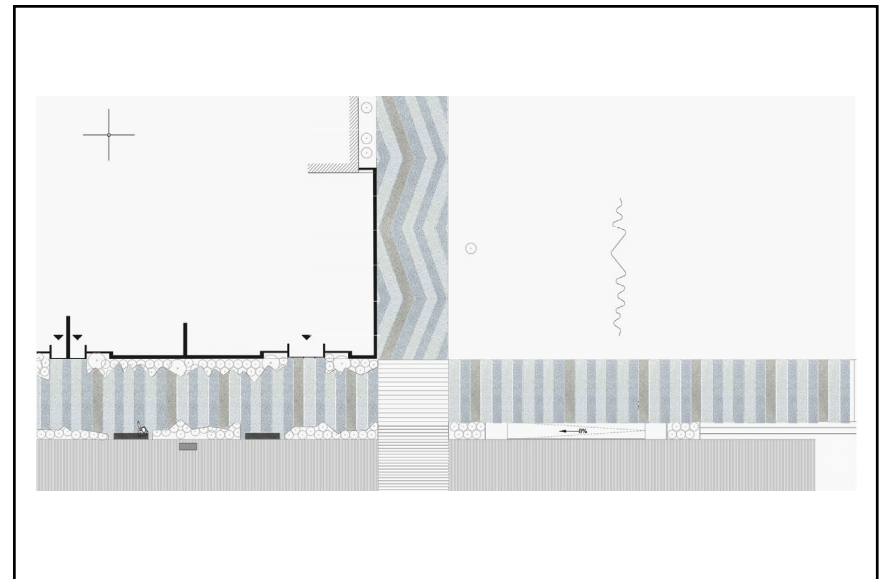
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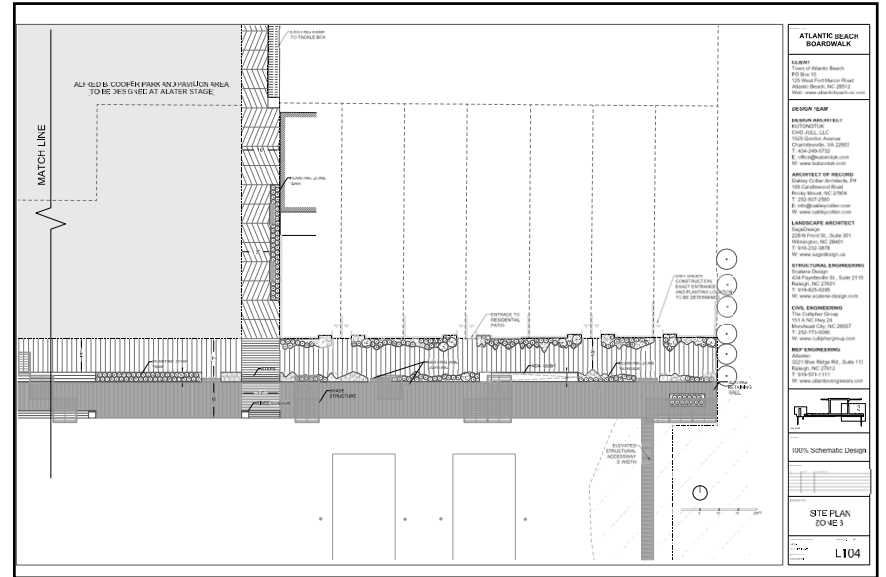
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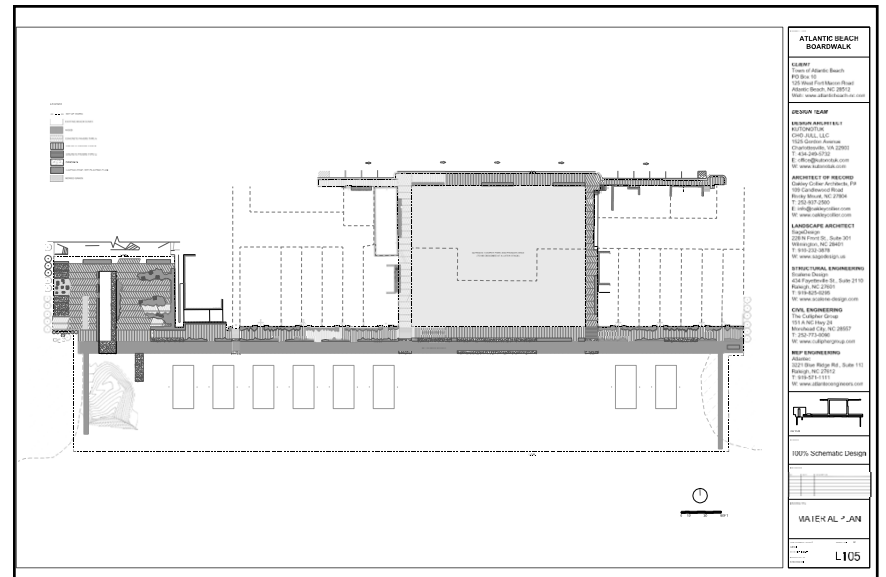
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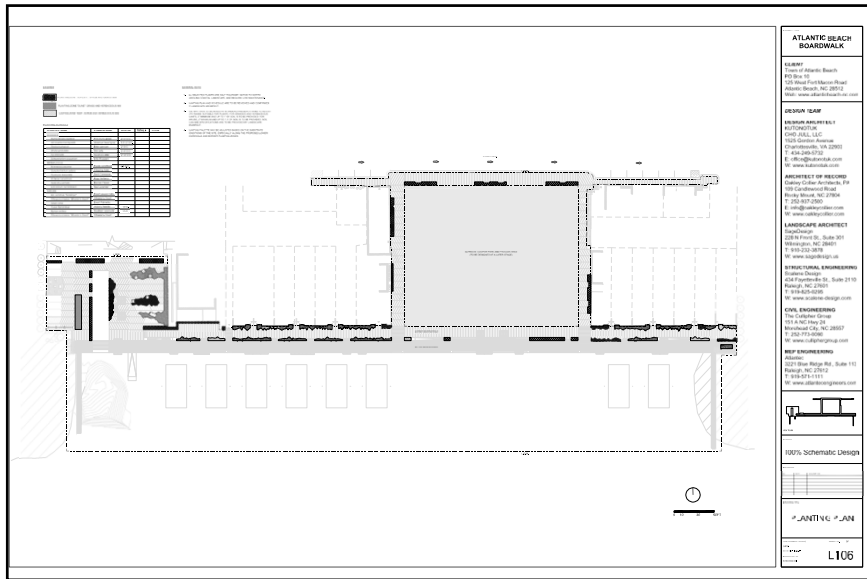
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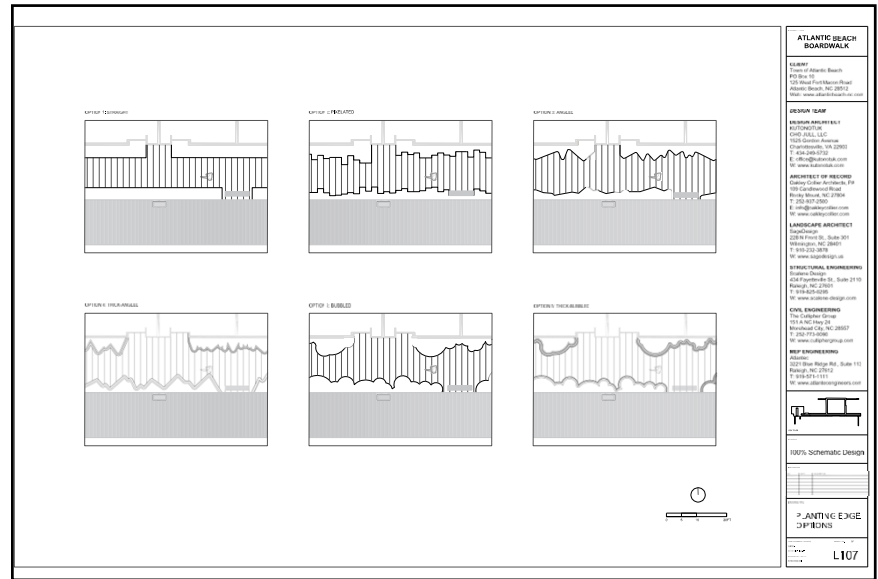
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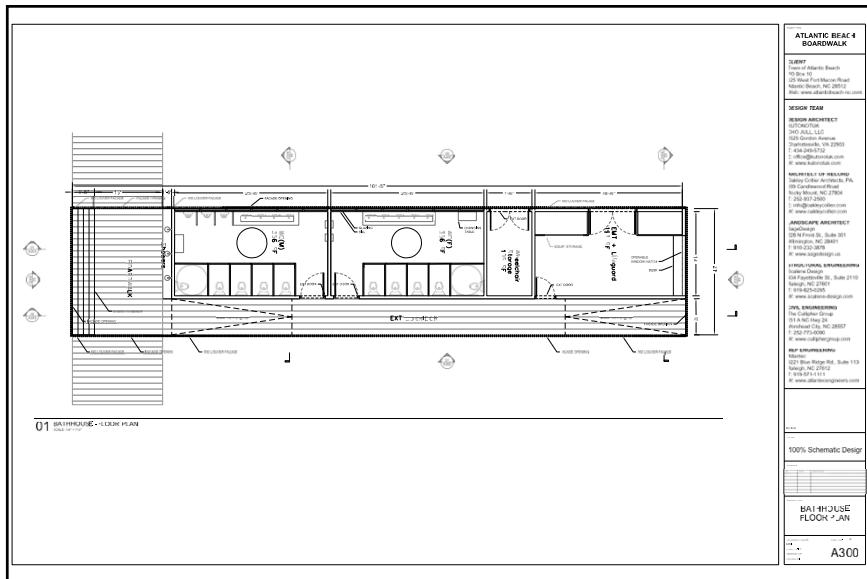
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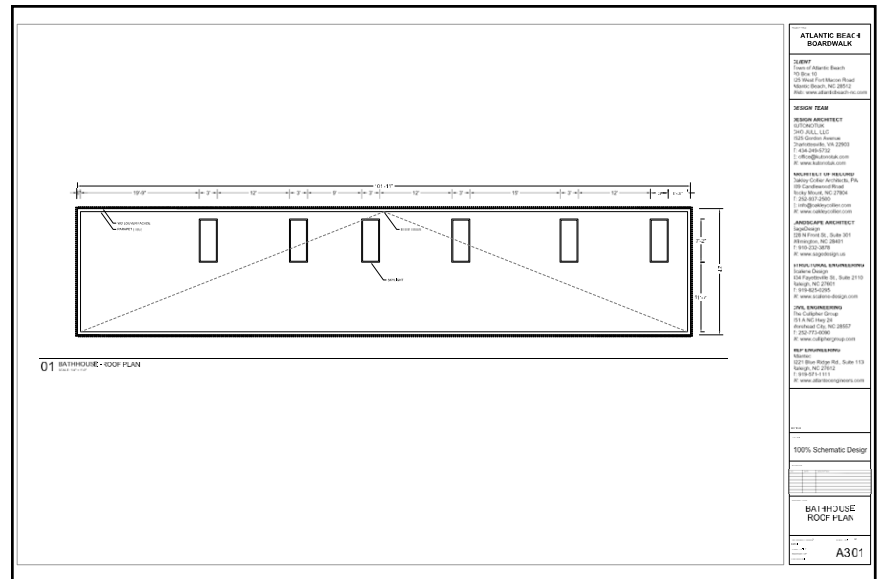
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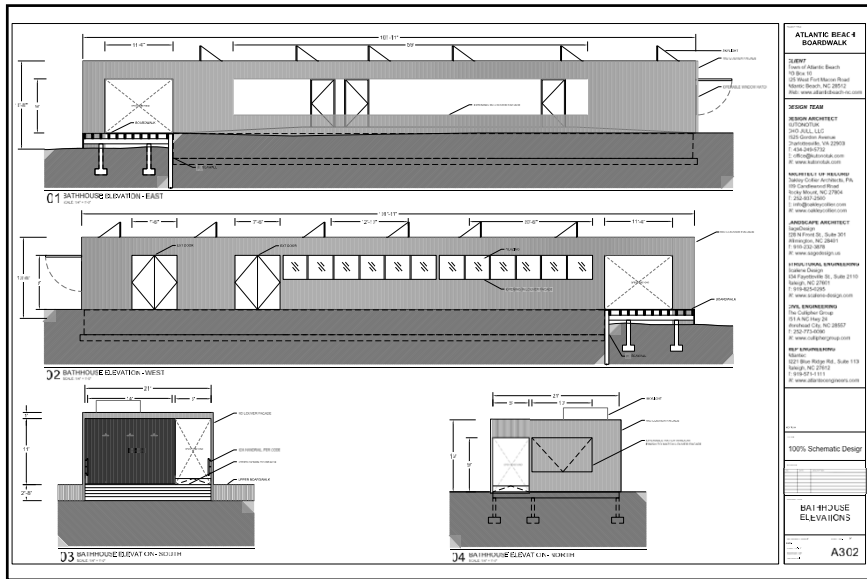
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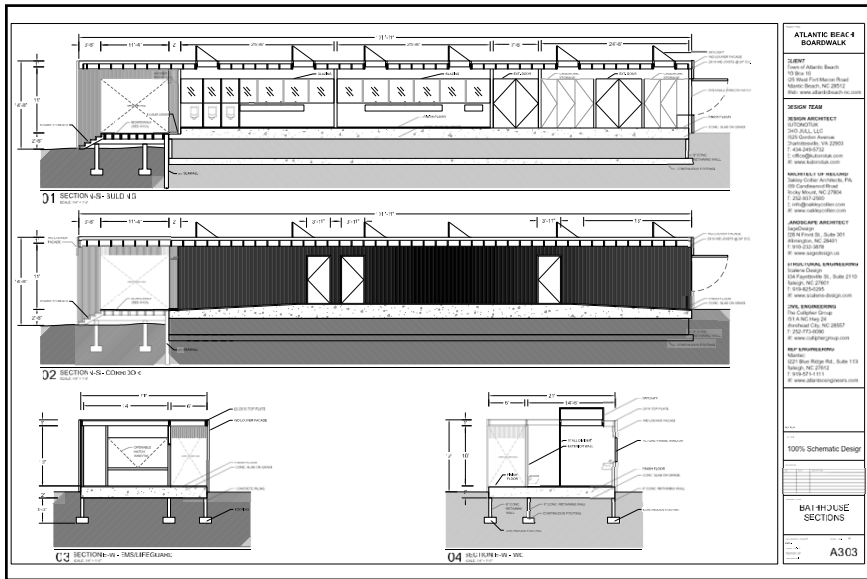
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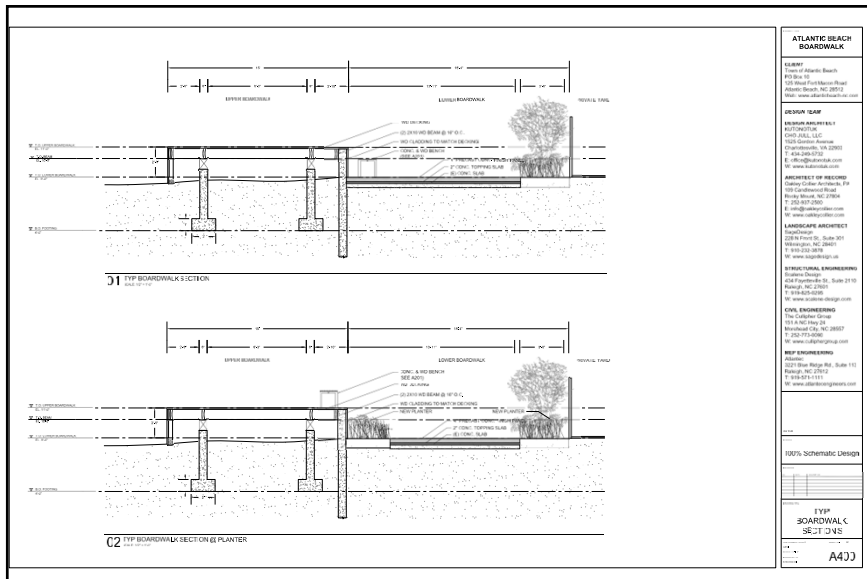
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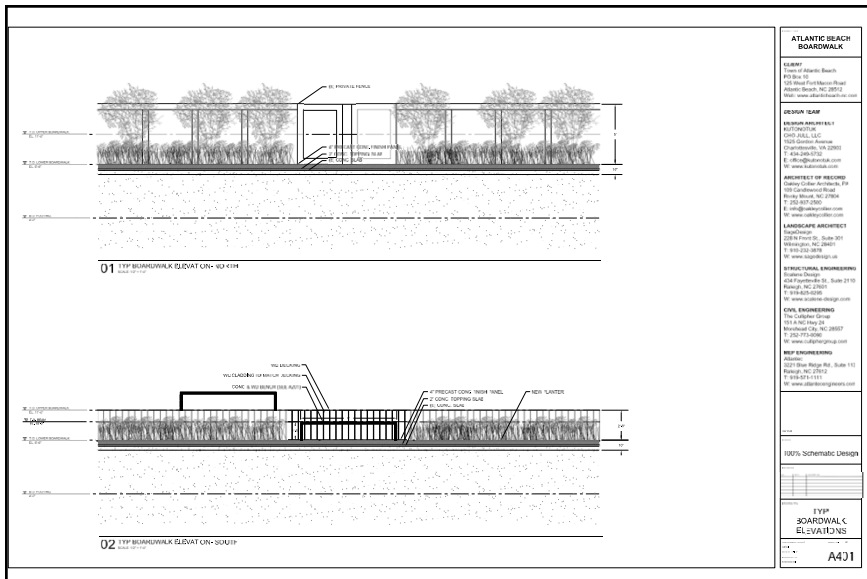
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ATLANTIC BEACH BOARDWALK

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100% Schematic Design

TYP BOARDWALK METALS

A402

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TYP BOARDWALK METALS

A403

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100% Schematic Design

TYP SEATING STR. DETAILS

A434

ATLANTIC BEACH BOARDWALK

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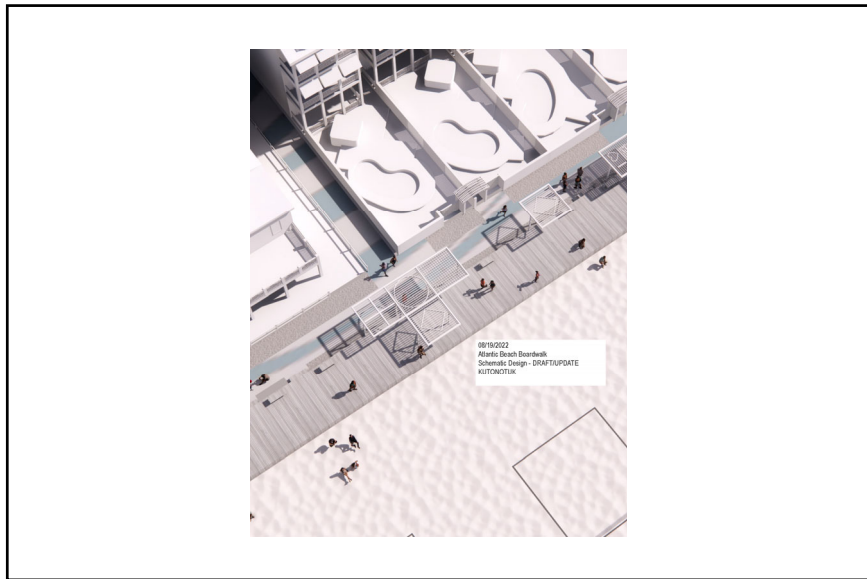
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100% Schematic Design

TYP SEATING STR. DETAILS

A405



08/10/2022
Atlantic Beach Boardwalk
Schematic Design - DRAFT/UPDATE
AUTONOTUK

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The Crystal Necklace - A new public Boardwalk for Atlantic Beach, NC
[competition text]

The Crystal Necklace considers the boardwalk as the anchor of a linked series of public spaces and amenities and is both pragmatic and efficient while also emphasizing accessibility and exceptional experiences for residents and visitors alike within the already beautiful community in which it serves. The new boardwalk, amenities, and public spaces will provide an opportunity to not only strengthen the rich history and life of the community, but also to meet the needs of future expansion and growth while addressing environmental challenges for a vibrant coastal community. The proposal consists of four key elements: 1) The Boardwalk - a two-part system consisting of an upper, linear, raised, east-west boardwalk located outward of the existing sea wall and extending to meet the natural dunes at either end, and a lower boardwalk at-grade, consisting of paving and signage that extends inward toward walking and cycling paths, amenities, and The Point. The upper boardwalk is 15' wide and raised 30" to meet the 11' storm surge requirement, aiding accessibility, avoiding negative impacts on adjacent property privacy, while allowing delightful vegetation and natural sand accumulation between. 2) The Alfred B. Coogler Park - the existing and improved central public park and gateway to the beach and boardwalk is the site of The Grove - a proposed area of native live oak trees that will bring much needed shade and an ecological buffer to the area. The Diamond - a 10'x50' multifunctional pavilion & performance space, visitor rest area, and elevated viewing platform that is connected directly to the boardwalk, as well as a space designated for restrooms and public art in a central location. 3) The Crossing - a new welcoming gateway and amenity for visitors at the west end of the boardwalk, consisting of a single level building that provides bathrooms, rest stations, a shaded beach viewing area, a small kiosk for snacks or other beach supplies, and a gazebo - a play area that doubles as a splash area for kids, and sports. 4) The Point - a public park and welcoming beacon for the neighborhood and flexible event space with native species trees, vegetation, and seating area for shade and protection while also serving to mitigate flooding and through permeable surfaces and drainage. Integrated within these four key components in the Crystal Necklace are historic markers directly embedded in the boardwalk and seating areas, as well as designated spaces for public art. Together, these new spaces and amenities provide an opportunity for Atlantic Beach to not only create iconic and timeless destinations for residents and visitors alike, but to strengthen existing urban, social, cultural, and ecological networks.

Project Team

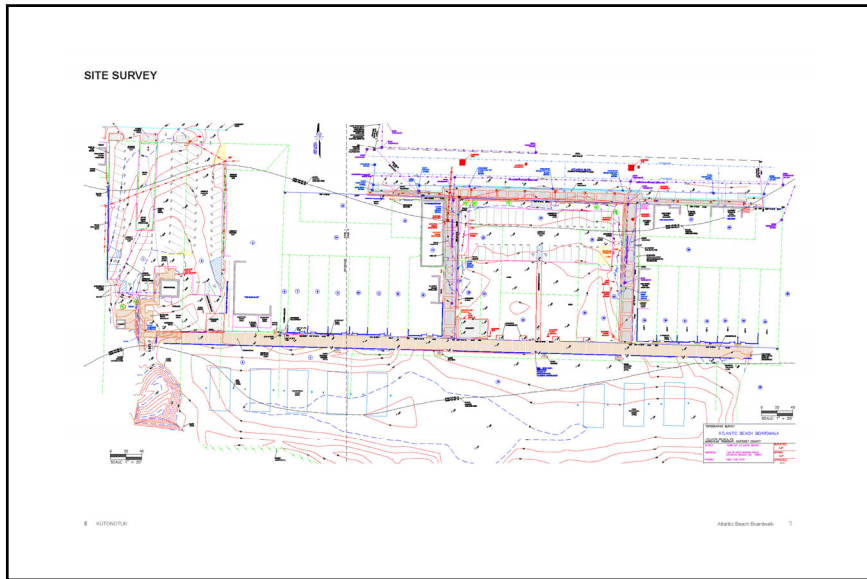
Design: KUNOTUK , Durham, NC, VA Katie Kuntz, Principal, Creative Director Katie Kuntz, Principal, Creative Director Katie Kuntz, Principal, Creative Director Katie Kuntz, Principal, Creative Director	Structural Engineering: Strom-Miles , Raleigh, NC, VA 0000000000 0000000000 0000000000 0000000000
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Project Schedule

08/10	3D draft package to client
09/24	Meeting to review 010 package
09/12	75% SD
09/14	Presentation to Town Council Work session
09/28	100% SD presented Town Council Meeting
10/20	Phase 1 Construction Documents
12/09	Phase 1 Bidding/Negotiation
Jan-May '23	Construction Administration

SITE INFO / SURVEY

The site survey of the project area is complete, and additional information has been provided on maintenance and existing conditions/structure of the lower boardwalk. We are currently working to update and adjust the competition design to this new information, as well as comments and feedback we have received from the 07/12-07/13 meetings.



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PROJECT PERMITTING / CAMA SITE CONSTRAINTS

The CCM provided additional clarification on permitting at a follow up meeting on 09/11. Several key points:

- The static line exception granted to All (to the static vegetation line) is not applicable in front of the boardwalk area in AB. This exception applies to areas east and west of the boardwalk area.
- Planting of dune grass in areas where there are currently sand fences in front of the boardwalk area would take several years before these could be considered as a static vegetation line.
- The Carolina Beach boardwalk has a "special legislative demarcation" of the static line that allowed development further sea-west than we can expect for AB. Their variance process is documented here.
- The public nature of the AB boardwalk development would be seen favorably for granting a variance.
- Limiting the upper boardwalk as the only element of the design southward of the static line is advisable in terms of seeking a variance, with the location of the physical structures of the pavilion and bathroom being located north of the static line (seawall).
- CDEngineering level drawings would be needed for the permitting process. In other words, we'd have to complete the CCI set to find out if variance would be granted.
- The boardwalk project would trigger a major permit.

10 AUTONOTUS Atlantic Beach Boardwalk 11

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SITE DRAINAGE

Existing drainage

Proposed drainage

EXISTING SCUPPERS

- Scuppers are located at approximately every 15' along the length of the existing sea wall.
- Each scupper is approximately 10" wide. They are buried in sand but are functioning.

Approximate location of scuppers

10 AUTONOTUS Atlantic Beach Boardwalk 11

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EXISTING CONCRETE PAVERS

Currently, there are over 10,000sqft of concrete pavers used surrounding the perimeter of the ABC Park area that can cover approximately 2/3 of the ABC Park site (see below diagrams).

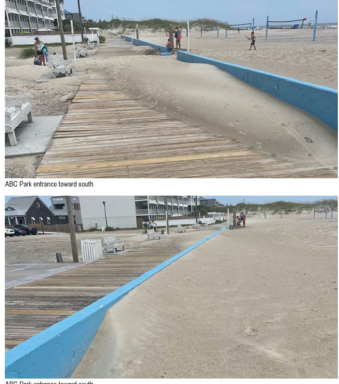
How might they be reused in the project?

- Red concrete pavers (~5,800sqft)
- Grey concrete pavers (~5,300sqft)
- Scale comparison to the Park

10 AUTONOTUS Atlantic Beach Boardwalk 11

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Wind & Sand




ABC Park entrance toward south

ABC Park entrance toward south


Sand Cleaning Equipment

*Marc is sending us the equipment dimensions & photos. The dimensions will influence path widths, turning radii, shape of border planters, hardscape materials and patterns, etc.



ABC Park entrance toward south


- Completely Not On Schedule
- **HDD DUNEAK** 12' working processing with minimum 20 HP and 12 to 14.5 inch Rear Tire Size
- **HDD PLUS** 16' working processing with minimum 20 HP
- **HDD MAX** 18' working processing with minimum 20 HP
- **HDD EXTRA** 14' working processing with minimum 160 HP
- Working Depth Processing Depth 0.8' HDD2, HDD3, 0.9' HDD4, HDD4, with **larger screen only, same as other models on the market today.**




Atlantic Beach Boardwalk 17

Pavilion Constraints + Additional Reference

- It was confirmed with Morgan Gilbert (Director of Recreation, Communication & Special Events) about the needs of the pavilion for the Atlantic Beach Music Festival - a minimum of 15' clear height is needed.
- The pagoda type pavilion that was once on the site was designed for a different function than the needs of the current pavilion.
- Current practice for protecting equipment from a rain event is to use tarps.



Examples of attachment points needed for technical equipment in the pavilion.



2022 Atlantic Beach Music Festival

2022 Atlantic Beach Music Festival

Atlantic Beach Boardwalk 19

Summary of Comments from 07/12-07/13 meetings

<p>General</p> <ul style="list-style-type: none"> • View from Casanova Bridge - how does BWLK scheme impact view? • What is the fun? • Public Capacity <p>Permitting</p> <ul style="list-style-type: none"> • DCM 50' setback from sea wall. <p>Code</p> <ul style="list-style-type: none"> • Height of upper break vs seawall and code for railings <p>Programming</p> <ul style="list-style-type: none"> • Dog friendly? No dogs? • Play area alternative: tennis, frisbee • Beach Volleyball: keep courts NC orientation. Add or preserve existing • Consider adjustments to businesses (eg. Beachside/awning vs. awb view) • No food truck spaces next to Crab's Claw • Kiosk for beach wheelchair program • Programming for kids (lessons and just sport) Look at ocean • Place for staff to have lunch? • Storage space for equipment? <p>Boardwalk</p> <ul style="list-style-type: none"> • Lighting of Boardwalk for security. But not to affect turtle habitats (Play/Dot Turtle season) • Shading needed + Synthetic shading structures in Clave? • Resurfacing/condition to boardwalk • What is at ends of boardwalk? • Permitting wet dunes at each end • Beach wheel chair access <p>ABC Park</p> <ul style="list-style-type: none"> • Maintenance of park with different materials. • Synthetic Shade structures <p>Vegetation</p> <ul style="list-style-type: none"> • Indigenous veg at first meadow (back to this for pav ideas) 	<p>Pavilion</p> <ul style="list-style-type: none"> • Pavilion - protection from rain event. Is height necessary? no need for lighting?! • Pavilion other options? • Old pavilion was rectangle with long axis parallel to beach • Floor slats head in wind? • Pavilion - needs more "character". Reference to old circle... • Fall off pavilion • Position of pavilion wet setback (DCM) • Cable railings. <p>Bathroom</p> <ul style="list-style-type: none"> • Septic Field at bathroom - clarify • Mating Station as opposed to splash pad • AC=IBC <p>Parking</p> <ul style="list-style-type: none"> • Parking spaces existing vs new <p>Beach</p> <ul style="list-style-type: none"> • Dune grass ok to replace sand fences <p>Maintenance / Service / Safety</p> <ul style="list-style-type: none"> • More trash cans needed • Trash offer desk a big problem. Lighting will help. • Lighting of Boardwalk for security. But not to affect turtle habitats (Play/Dot Turtle season) • Bleachers Stand - impact on design + maintenance. • More vegetation along edge means maintenance more difficult. • Landscape friendly vegetation • Need large vehicle access to beach at least one spot. Walkways need to be made. • Microbial mat • Crab Claw - Noise complaints
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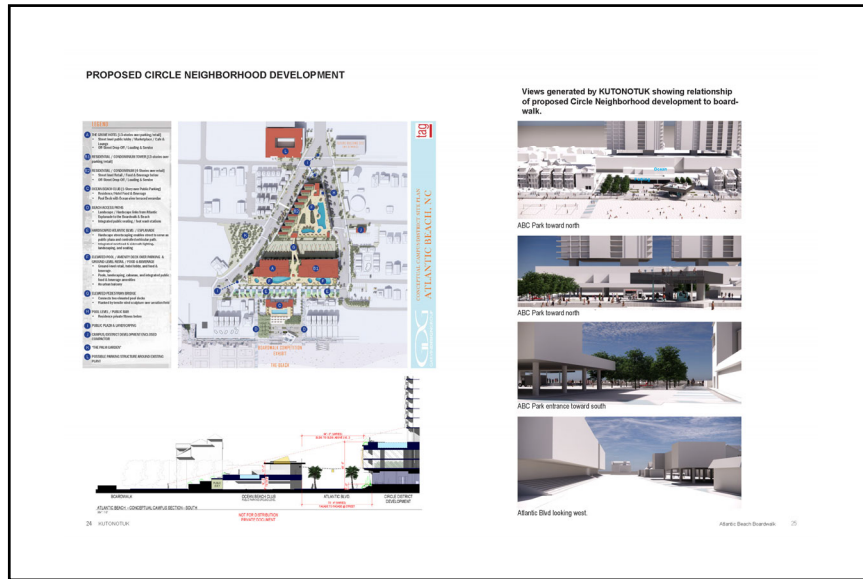
Atlantic Beach Boardwalk 21

CIRCLE NEIGHBORHOOD DEVELOPMENT

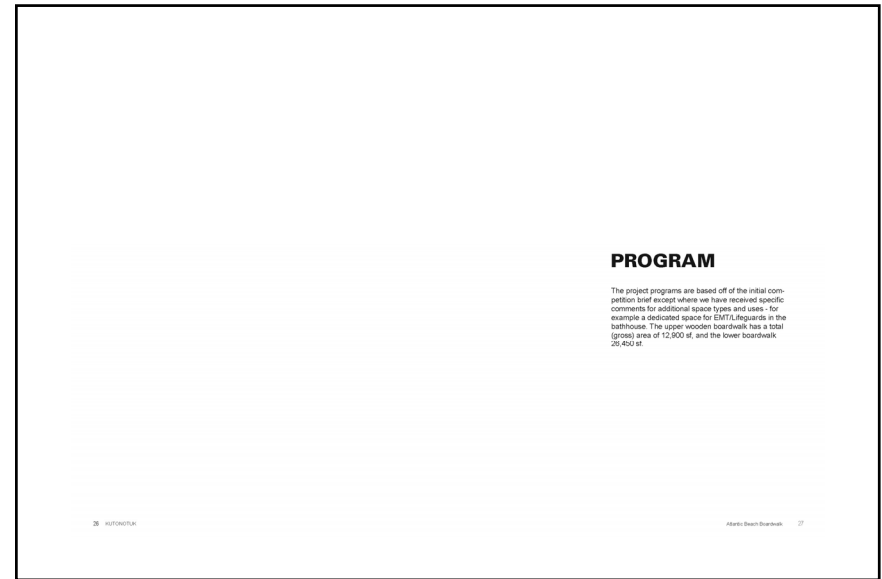
Our Project team has met with the Mr. Fred Duns and his architect Mark Timbers at the Garvin Design Group to coordinate our efforts on the design of the boardwalk and where the two projects meet. Some key takeaways:

- 1) There is an interest to emphasize public space in the Circle Neighborhood Development.
- 2) There will be a raised 50' path to the north of Atlantic Blvd.
- 3) There will be a private ocean club with swimming pool on top of a parking structure to the south of Atlantic Blvd.
- 4) This development would have a far greater impact on the viability of the ocean/beach than the boardwalk/pavilion.
- 4) A proposed "stepped" feature would extend from the southern edge of the club/parking structure, which would impact the space available in the ABC park - we have requested if this feature could instead become an open space and part of the ABC park.

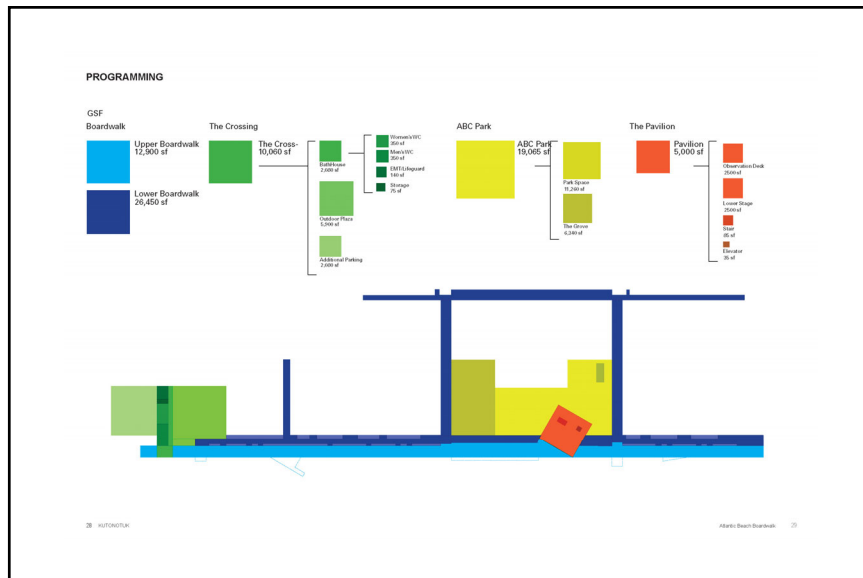
Atlantic Beach Boardwalk 23



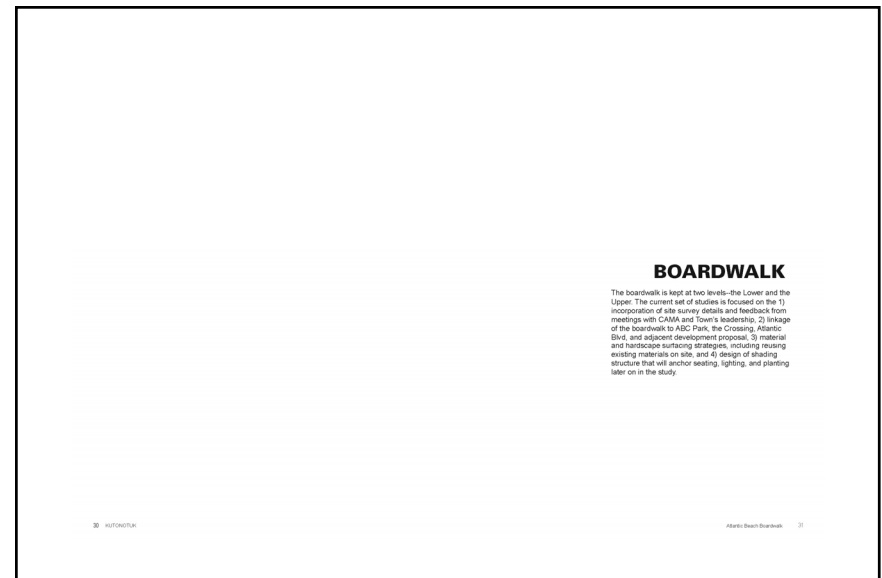
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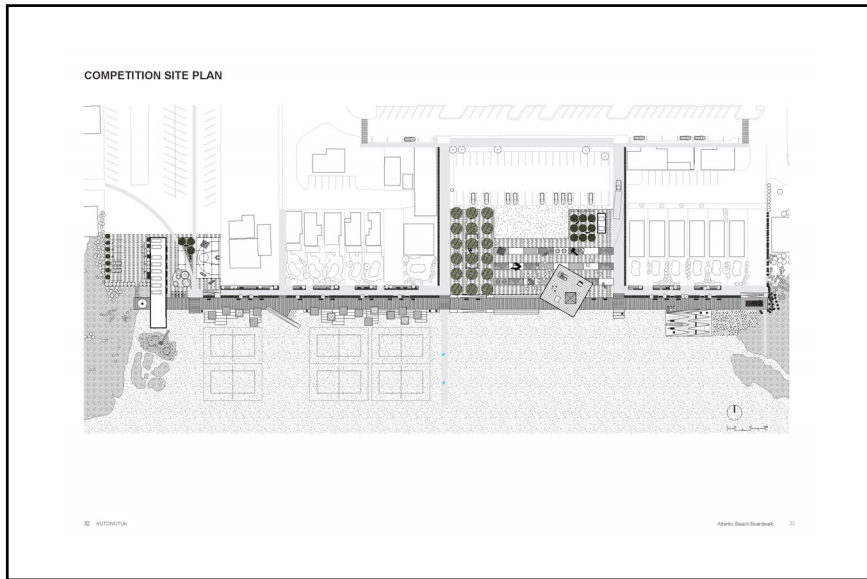
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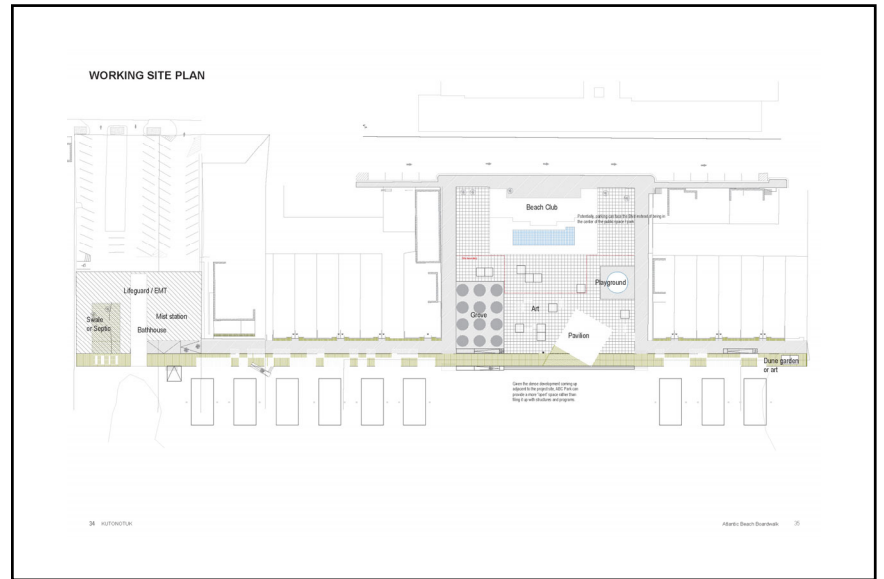
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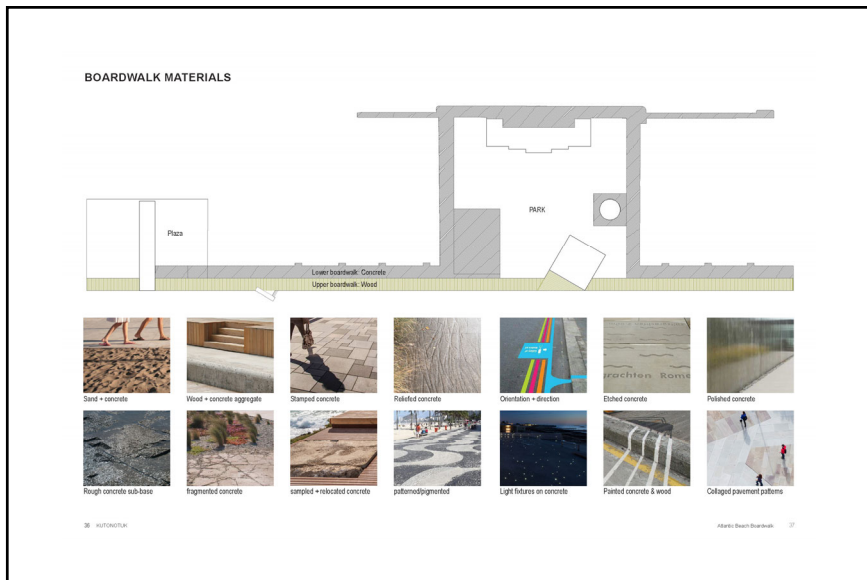
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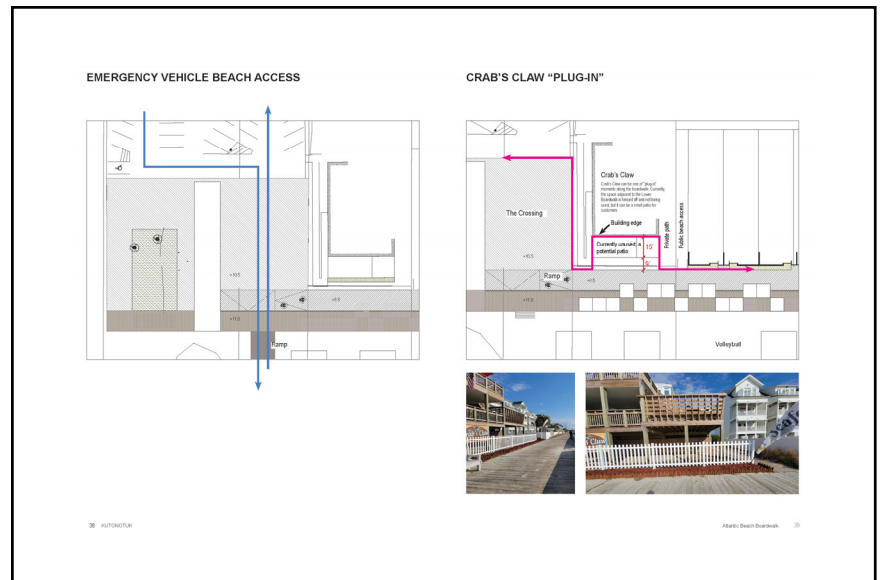
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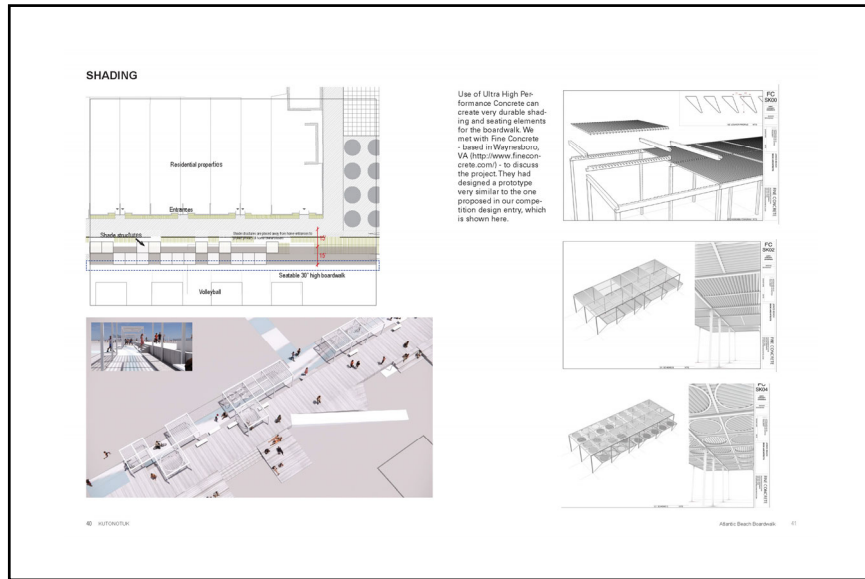
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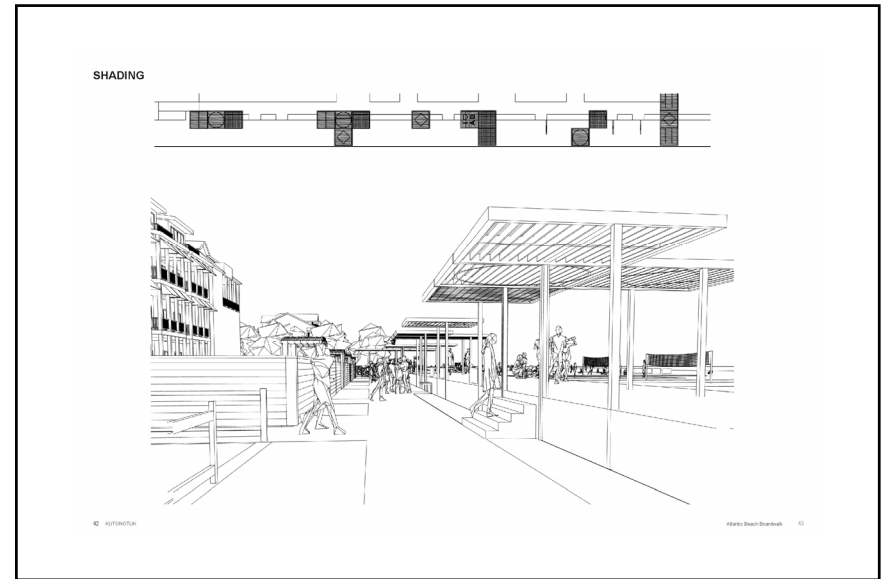
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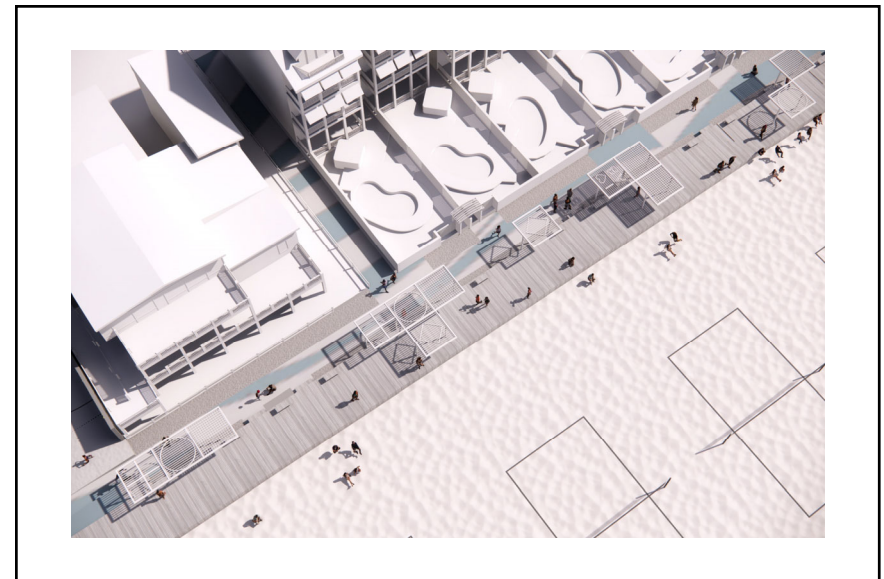
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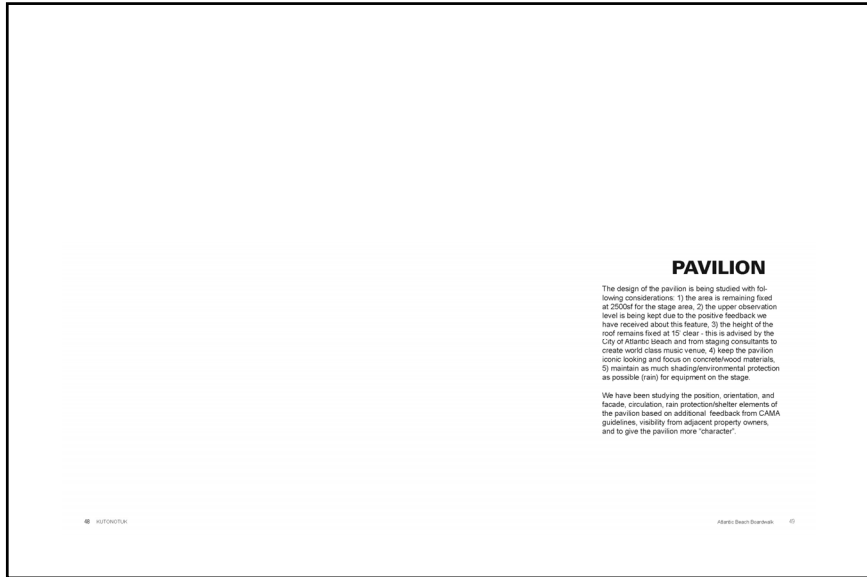
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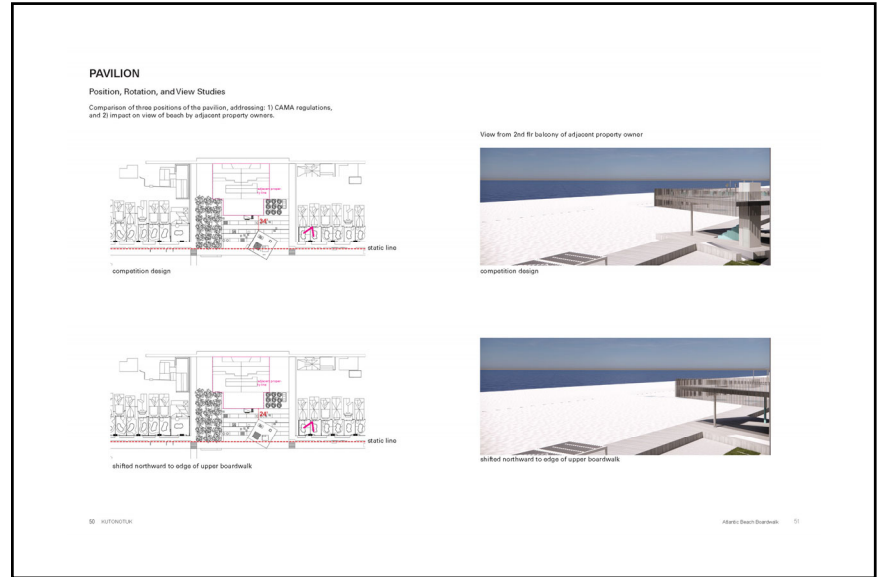
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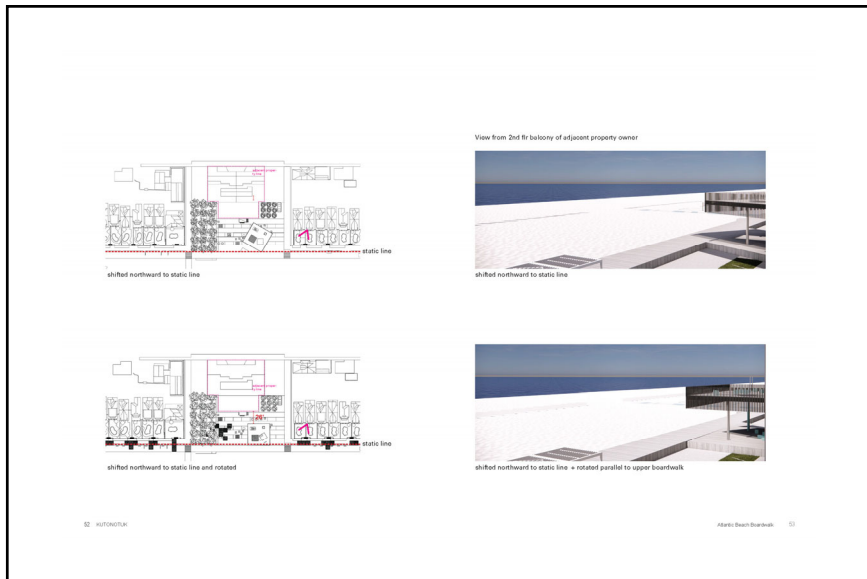
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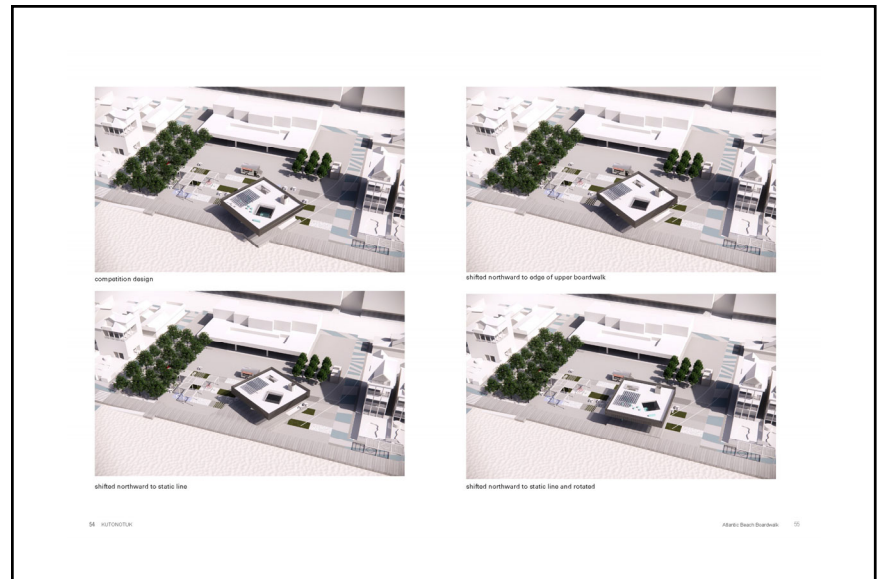
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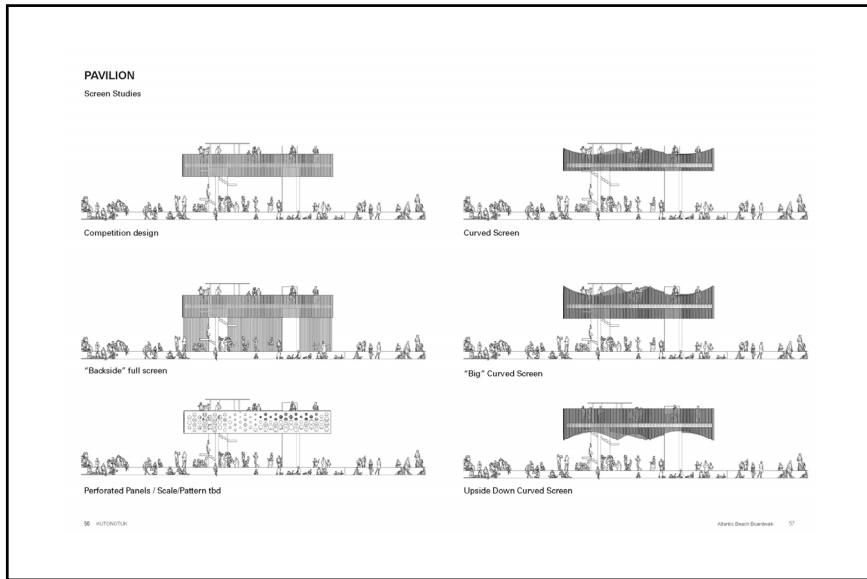
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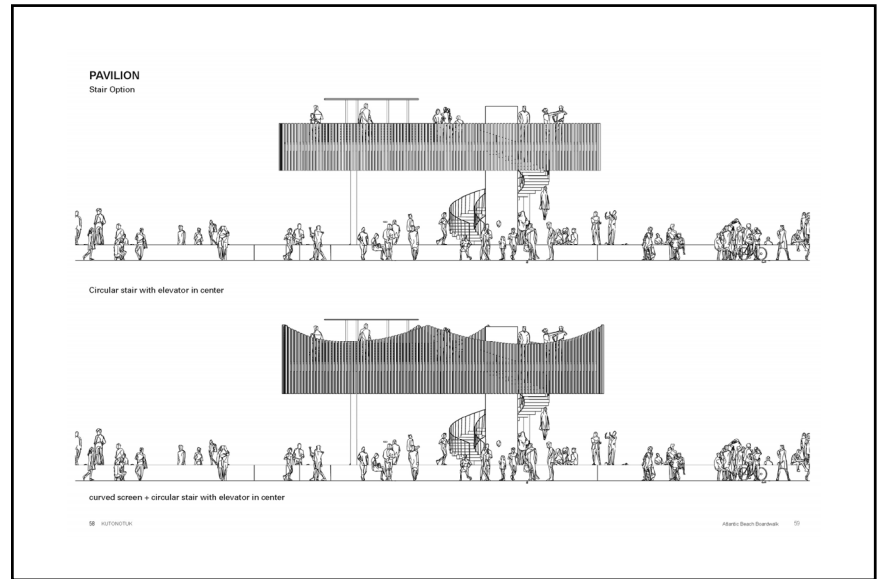
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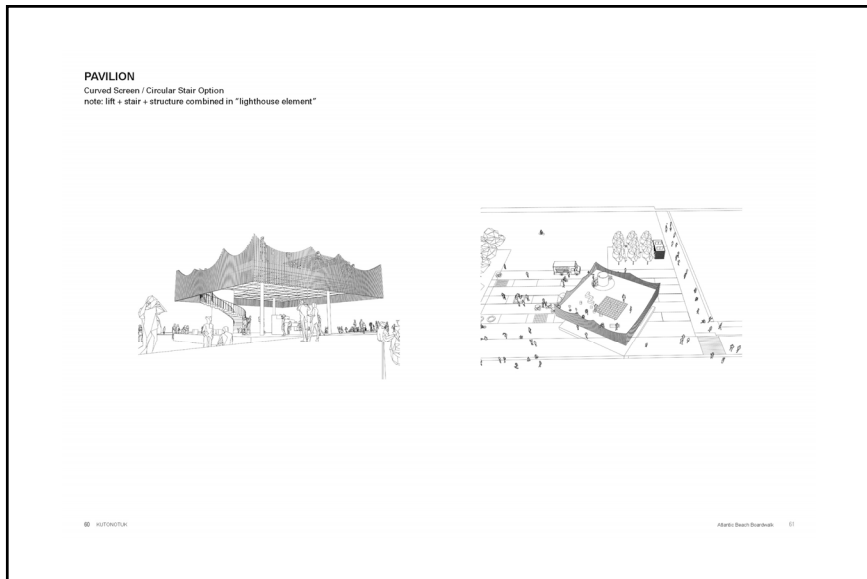
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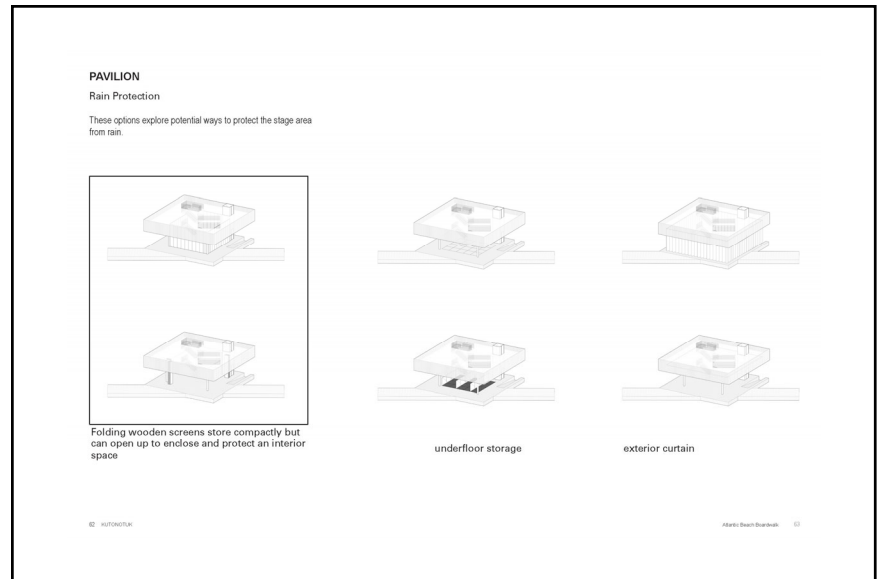
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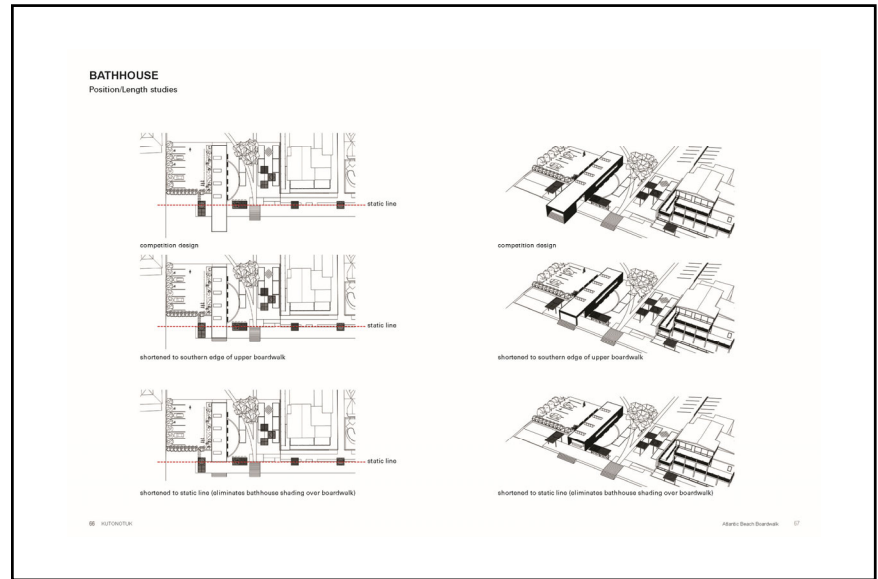
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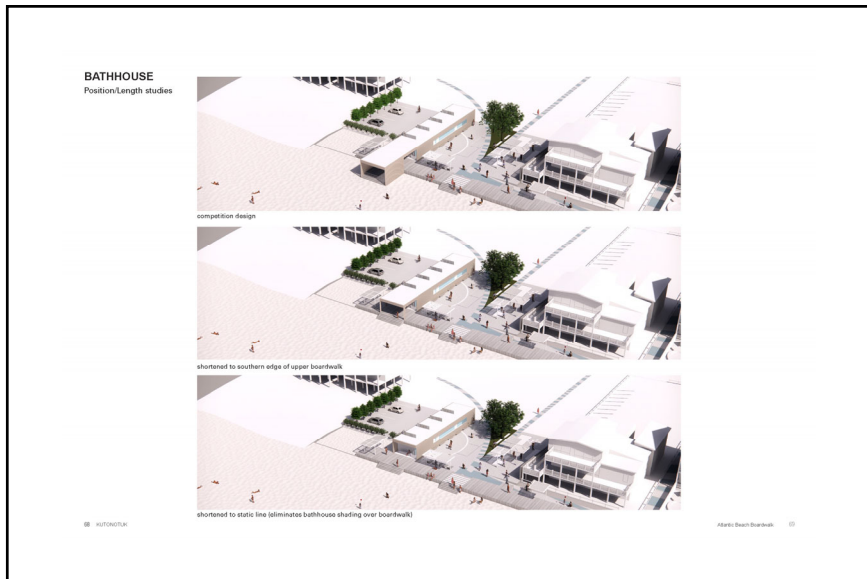
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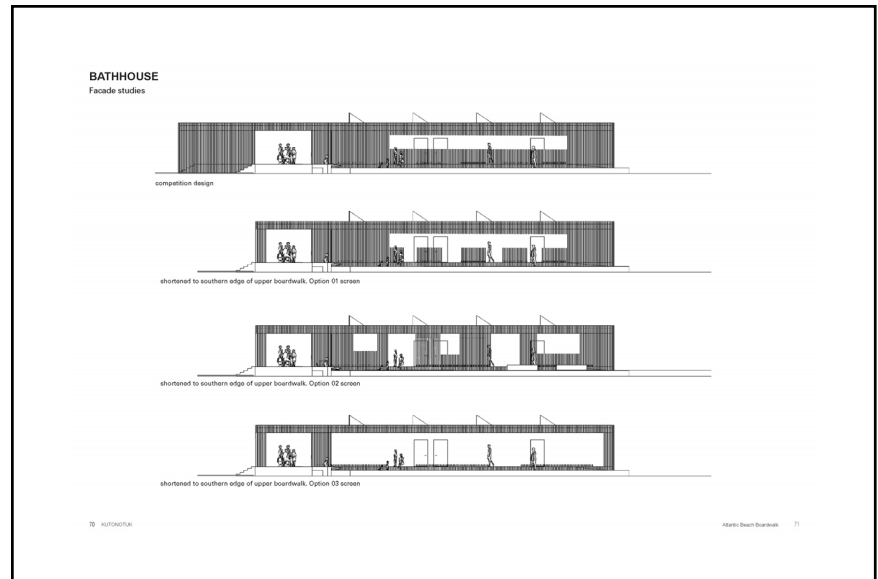
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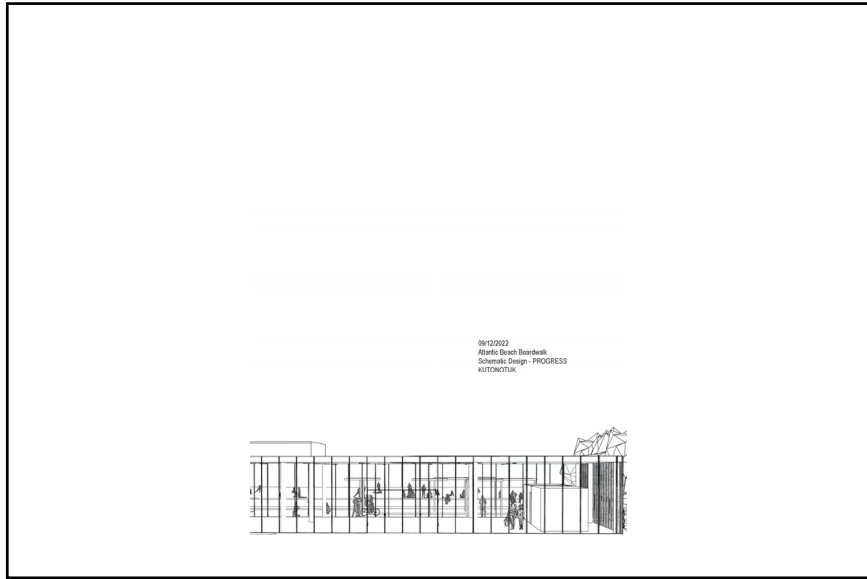
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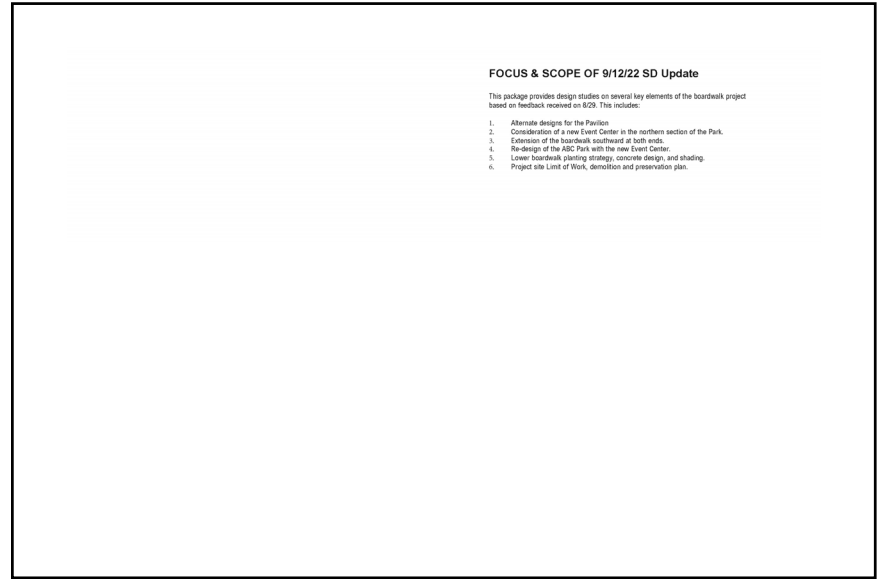
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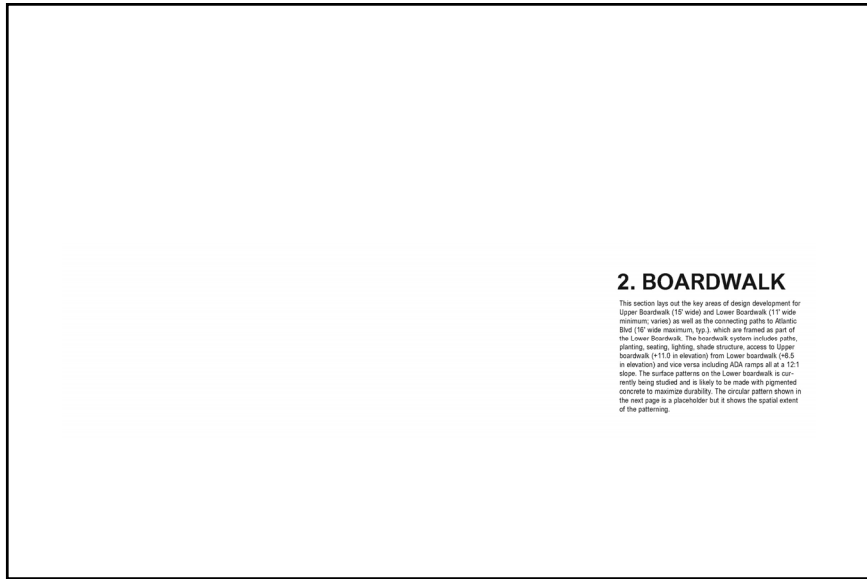
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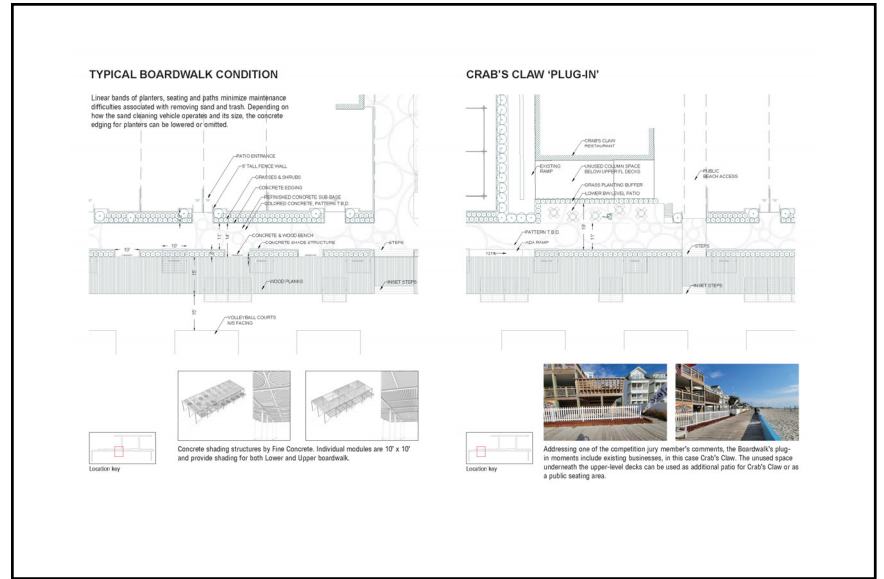
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TACKLE BOX AS A 'PLUG-IN'

Tackle Box's outdoor patio can "plug" into the Lower boardwalk system (connecting paths to Atlantic Blvd) as well, providing additional seating, shading and place of gathering.

Location key

MISTING STATION

Instead of installing a water-play fountain, vertical misting stations are incorporated to the project. This will minimize maintenance concerns while providing iconic, playful moments. Misting stations will be both at ABC Park and the Crossing.

Location key

STRUCTURAL ACCESSWAY

WEST DUNE

EAST DUNE

15A NCAC 07H .0308 SPECIFIC USE STANDARDS FOR OCEAN HAZARD AREAS

near or lead to the maximum extent practicable and may be retrofitted within the Ocean Hazard AEC provided that it is not placed any further seaward than the crest of a primary dune, if present, or the crest of a broad dune.

(c) The placement of a dune area shall be allowed when other techniques of construction can be utilized and alternative site locations exist to avoid dune impacts.

(c) Structural Accessway

(1) Structural accessways shall be provided across primary or broad dunes so long as they are designed and constructed as a means that results negligible alteration of the primary or broad dune. Structural accessways shall not be considered structural for the purposes of Paragraph (d) of this Rule.

(2) An accessway shall be constructed to prevent significant alteration of primary or broad dunes provided that:

(A) The accessway is reinforced for pedestrian use;

(B) The accessway is a minimum of six feet in width;

(C) The accessway is raised on posts or pilings of five feet or less depth, so that whenever possible and the posts or pilings touch the dune, an accessway with any more restrictive local, State, or Federal building requirements. Beach marking for a local, State, or Federal government or public agency shall be installed at grade and not include any encroachment of the dune; and

(D) Any areas of vegetation that are disturbed are propagated as soon as feasible.

(3) An accessway that does not meet Part (2)(A) and (2)(B) of this Paragraph shall be provided only if a permit, public hearing or some other means of review is required by the Division, and the length of the accessway does not exceed the length of the dune.

(4) In order to preserve the protective nature of primary and broad dunes, a structural accessway (such as a "flattened ramp") may be provided for off-road vehicle (ORV) or emergency vehicle access. Such accessways shall be no more than 15 feet in width and may be constructed of rocks unless otherwise specified, or other materials approved by the Division, over the length of the affected dune area. Landmarks of historic value shall be done in a manner that will preserve the dune's historic or prehistoric former position and remain by restoring the natural of the dune.

(5) Structural accessways may be constructed no more than six feet seaward of the seaward crest of the broad or primary dune, provided they do not interfere with public view rights and emergency access along the beach. Structural accessways are not restricted for the purposes of the backwash of the First Line of Tidal and Natural Vegetation as described in Rule 300(a) of this Section.

(d) Building Construction Standards. New building construction and any construction described in 300(a)(1) of this Section and 15A NCAC 07H .0301 shall comply with the following standards:

(1) In order to avoid damage to life and property, all development shall be designed and placed so as to minimize damage due to destruction in ground elevation and wave action in a 100-year storm.

2. PAVILION

This section lays out the key parameters for the design of the Pavilion and provides multiple design options that differ significantly from the competition entry, based on feedback we have received. The design variables consist of:

- 1) Ceiling/Roof Height (fixed at 15' (4.26), 2) Area (800, 1500, and 2500 sf),
- 3) Materiality (wood/concrete),
- 4) Location and position.

Also, based on feedback, we have removed the occupiable roof as part of the pavilion design. A baseline for these studies is the existing temporary Pavilion erected for the Atlantic Beach Music Festival in terms of area (about 800sf) and overall dimensions (80'x20'x15').

Atlantic Beach Boardwalk

PAVILION : REFERENCE / DESIGN PARAMETERS

Scale & Dimensions: Temporary Pavilion Structure

The temporary Pavilion currently used for the Atlantic Beach Music Festival has dimensions of approximately 40'x20'x15' (clear ceiling height), with a total stage area of about 800sf. It is constructed of an aluminum truss structure, reinforced plywood flooring, and fabric.

This diagram explains the difference between: 1) the existing area for the temporary Music Festival pavilion, 2) the minimum area suggested in the Boardwalk competition brief, and 3) the area of the pavilion for the winning competition scheme. The existing pavilion used for the Music Festival is about three times smaller than the one proposed in the design competition.

Existing temporary pavilion

800sf

Atlantic Beach Boardwalk competition brief (1500 sf)

1500sf

Footprint of pavilion for competition entry (2500 sf)

2500sf

Atlantic Beach Boardwalk

PAVILION : FOOTPRINT

This image shows a scale comparison of three possible Pavilion "footprints" in the Park / boardwalk area. The purpose of this drawing is to show 1) the footprint of the smaller temporary Pavilion currently used for the Music Festival (800sf, 2) footprint of the larger final competition design Pavilion (2500sf). This helps to explore the available space in the park area depending on the different Pavilion footprints, if an additional structure located in the north half of the park area which is privately owned and currently reserved for parking.



18 AUTONOTUS

Atlantic Beach Boardwalk 17

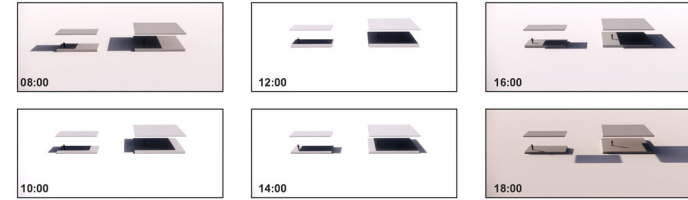
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PAVILION : FOOTPRINT, HEIGHT, & SHADING

An important factor that influences the pavilion design is the required 15' clear ceiling height. This high ceiling, combined with a potentially smaller footprint due to space limitations, reduces the protection of the area underneath from sun, rain etc. and can impact the design options.



Comparison of solar shading between an 800 of (40'x20') and 2500 of (50'x50') pavilion

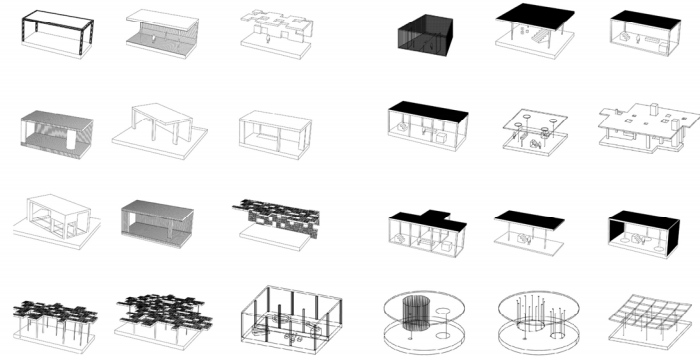


18 AUTONOTUS

Atlantic Beach Boardwalk 19

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PAVILION CATALOGUE (EXAMPLES)



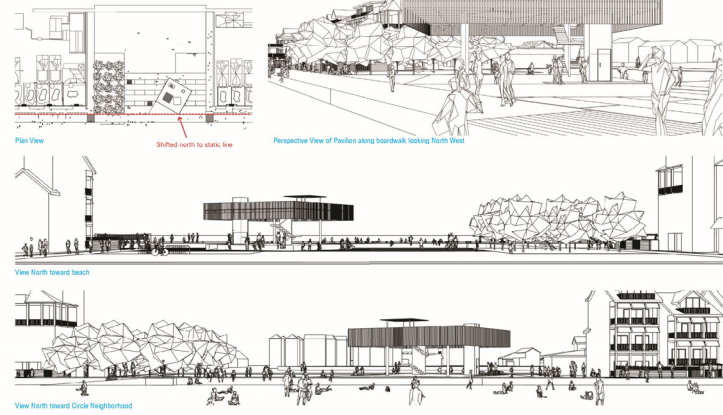
20 AUTONOTUS

Atlantic Beach Boardwalk 21

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PAVILION - COMPETITION DESIGN

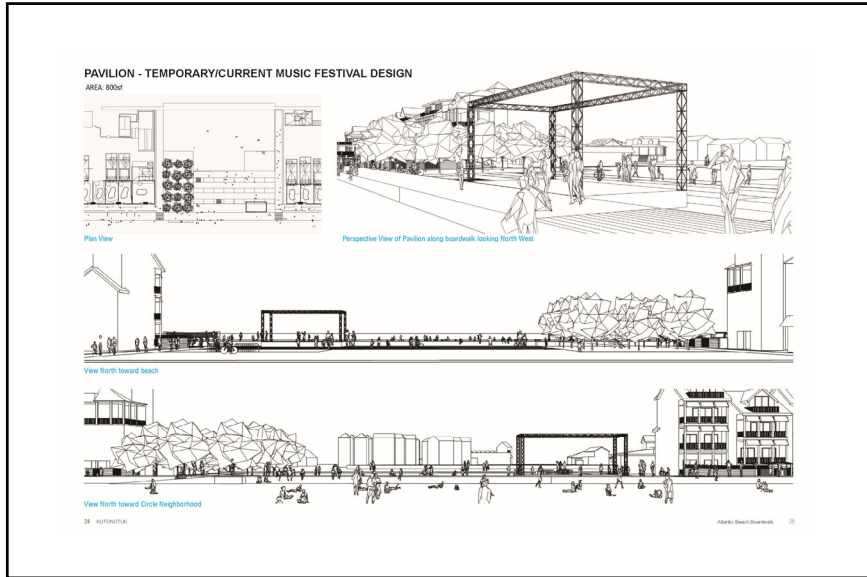
AREA: 2500sf



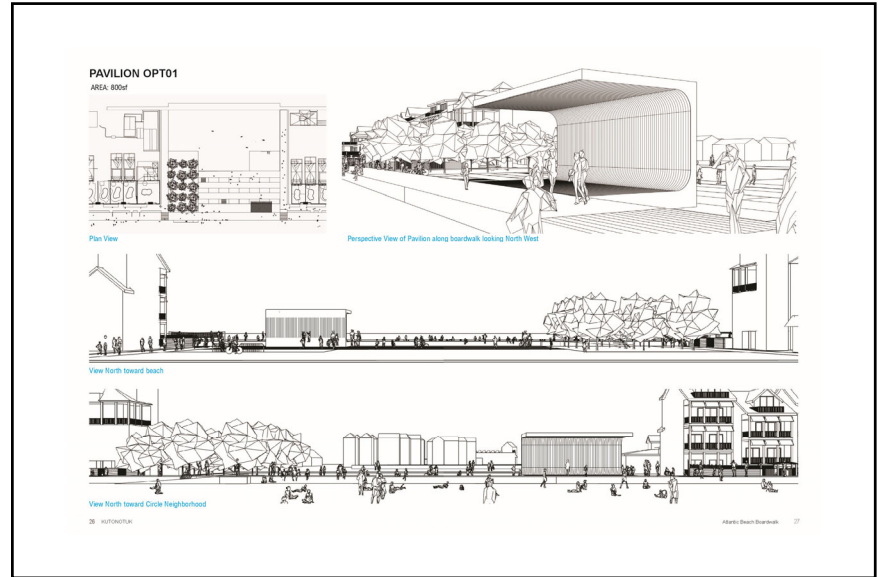
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Atlantic Beach Boardwalk 23

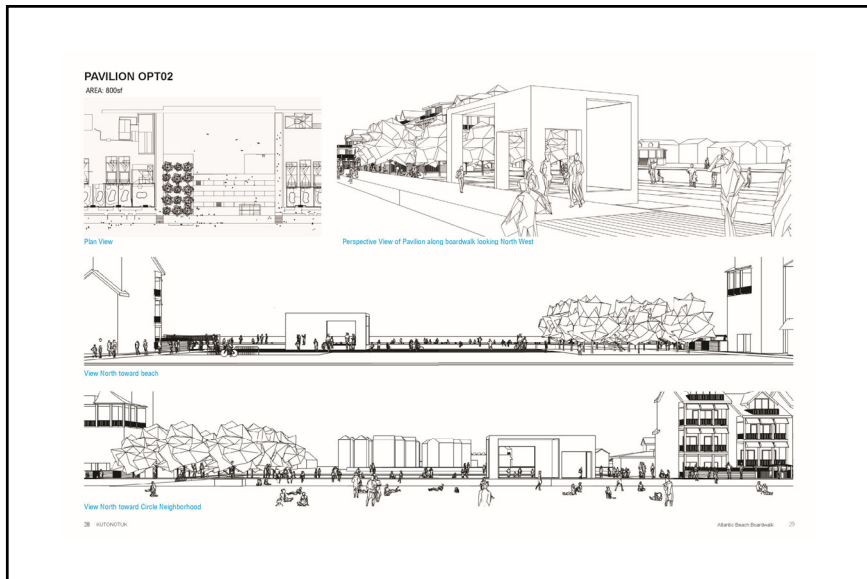
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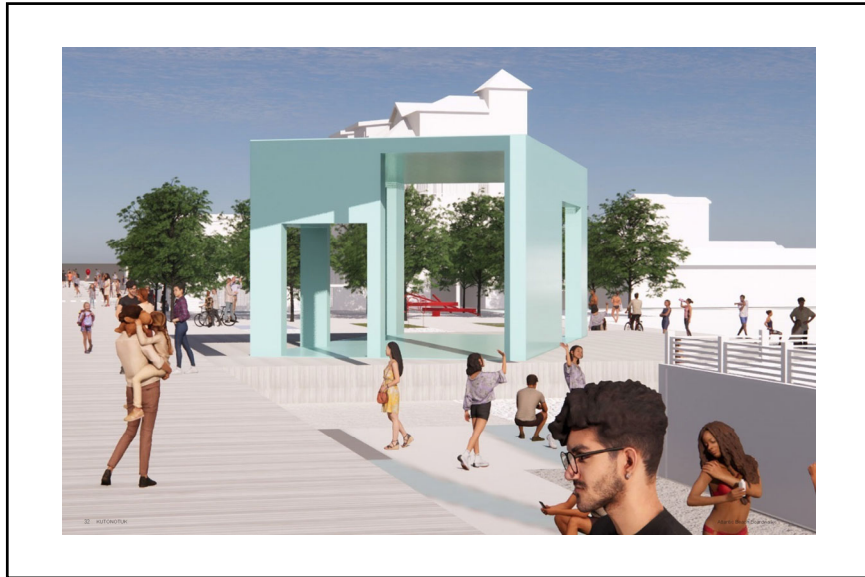
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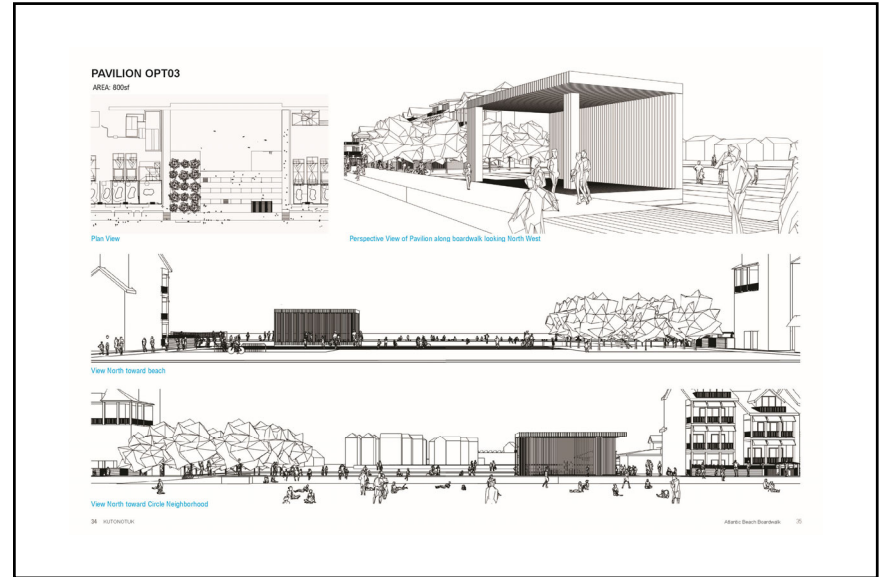
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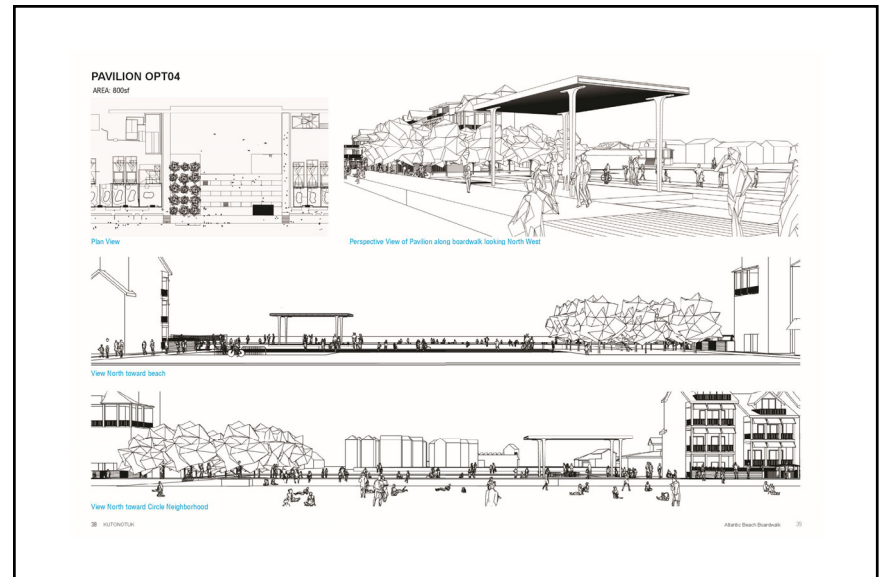
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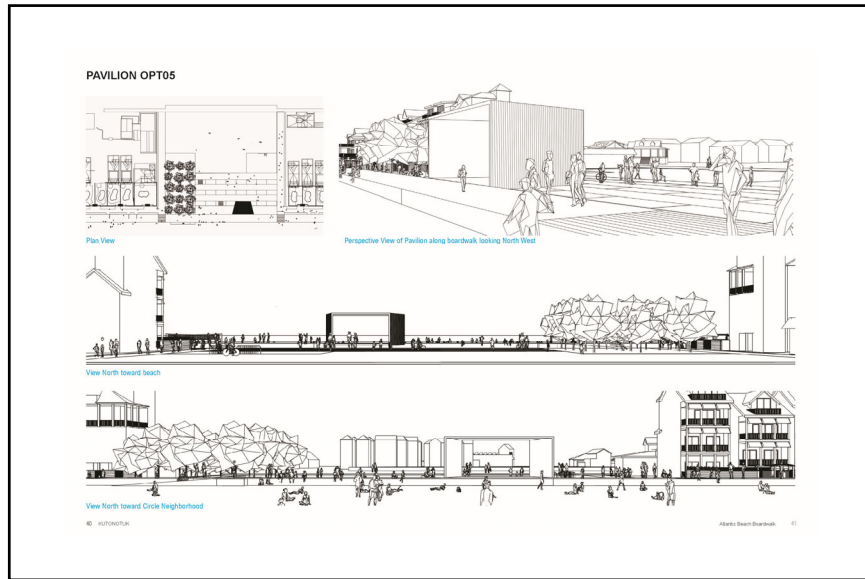
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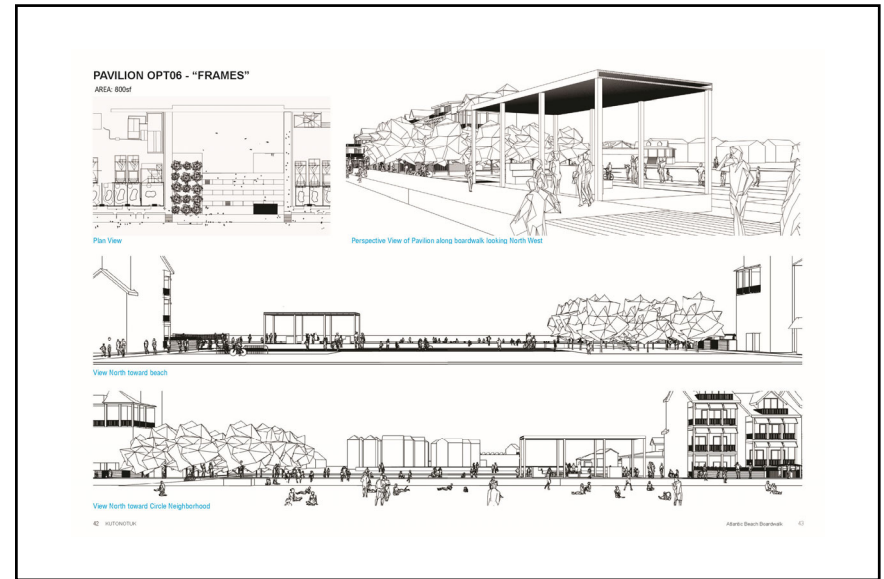
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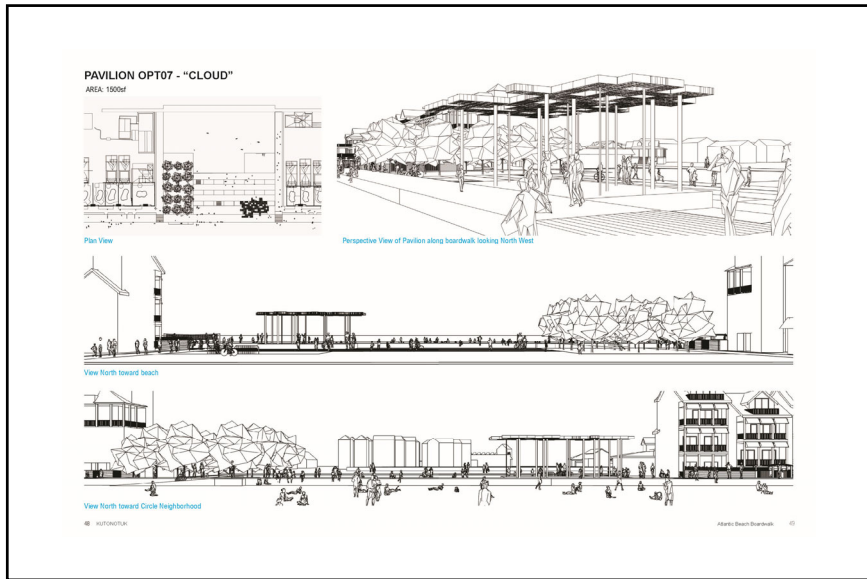
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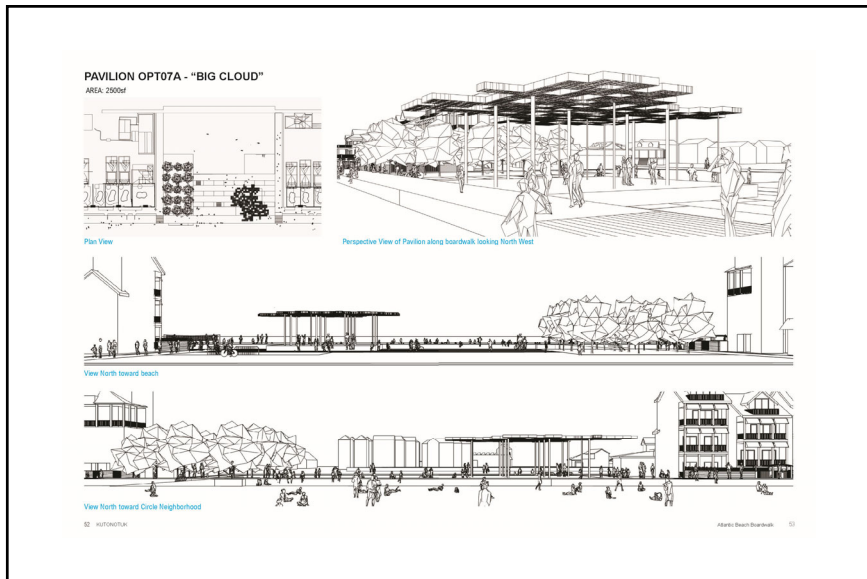
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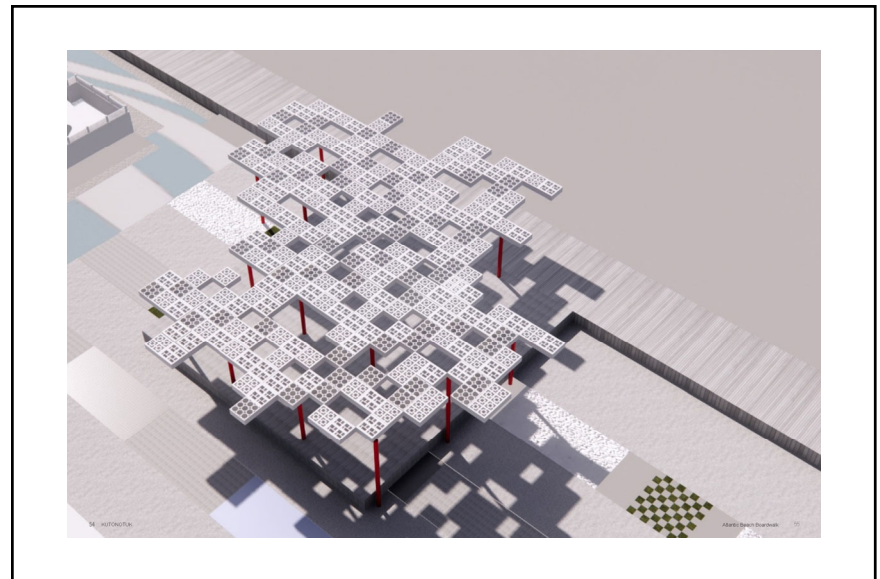
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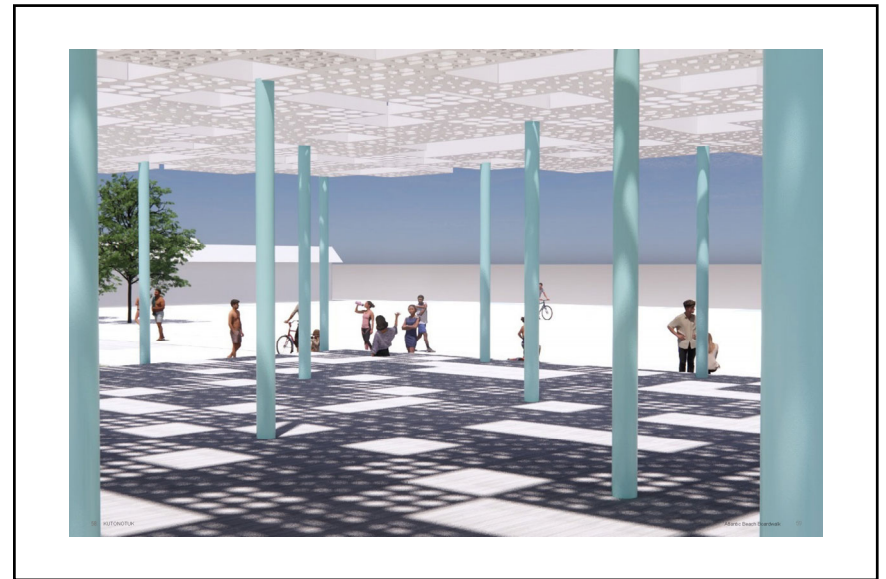
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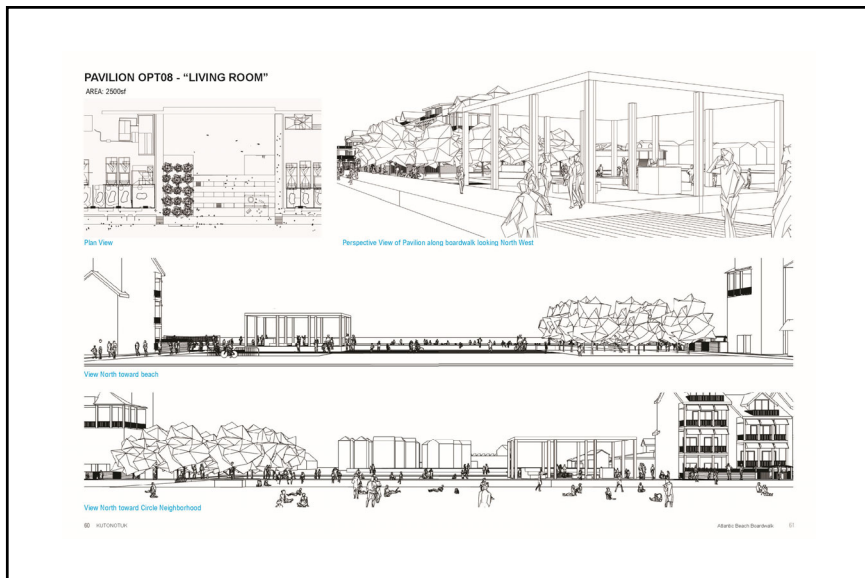
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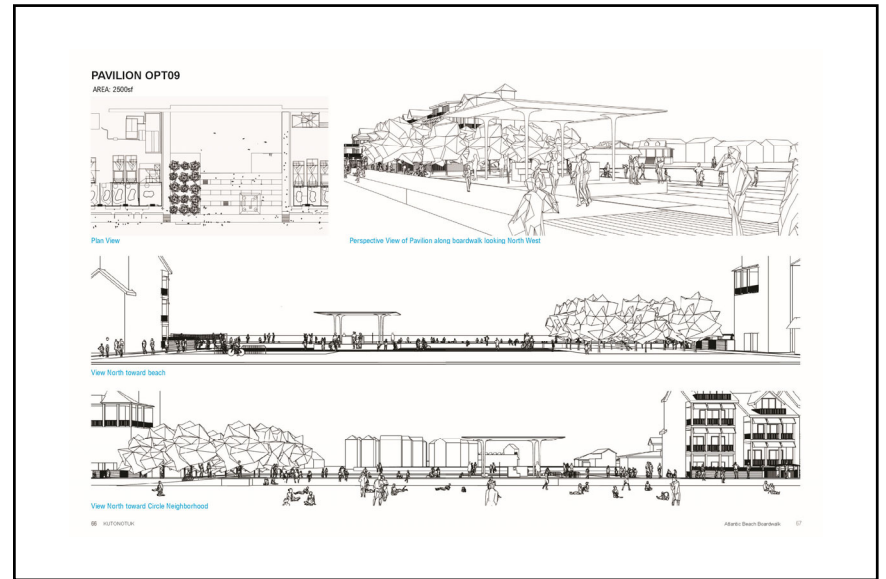
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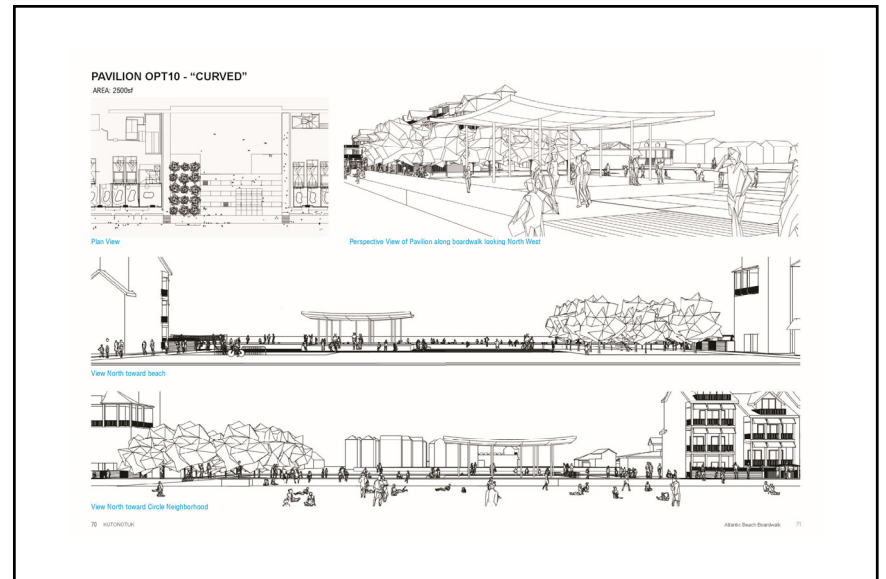
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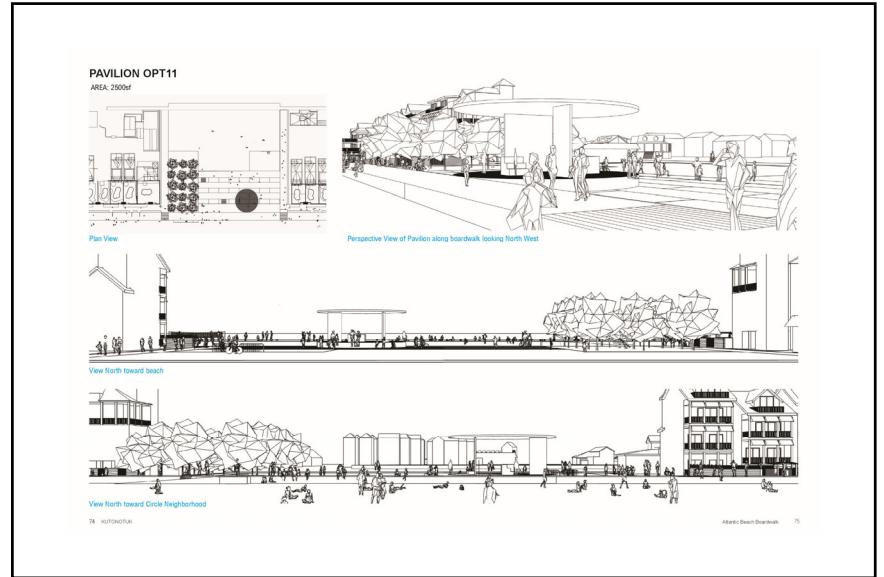
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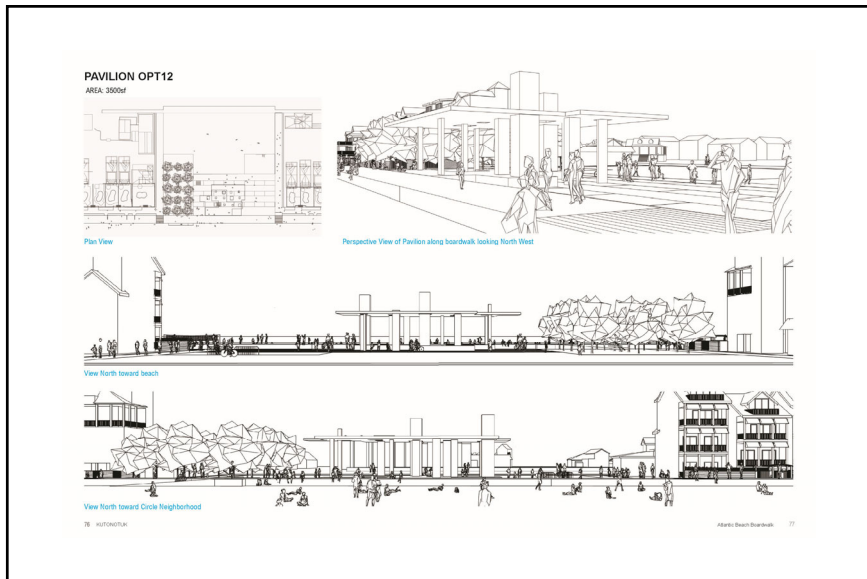
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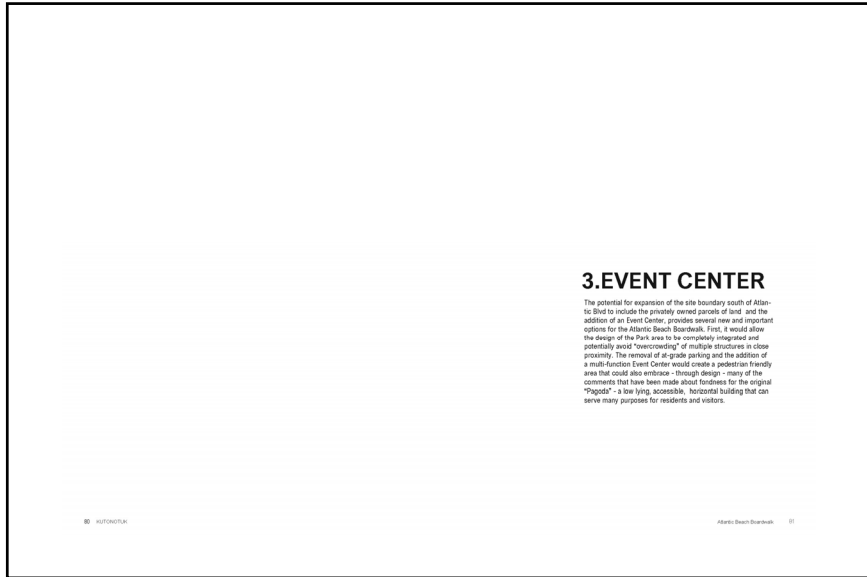
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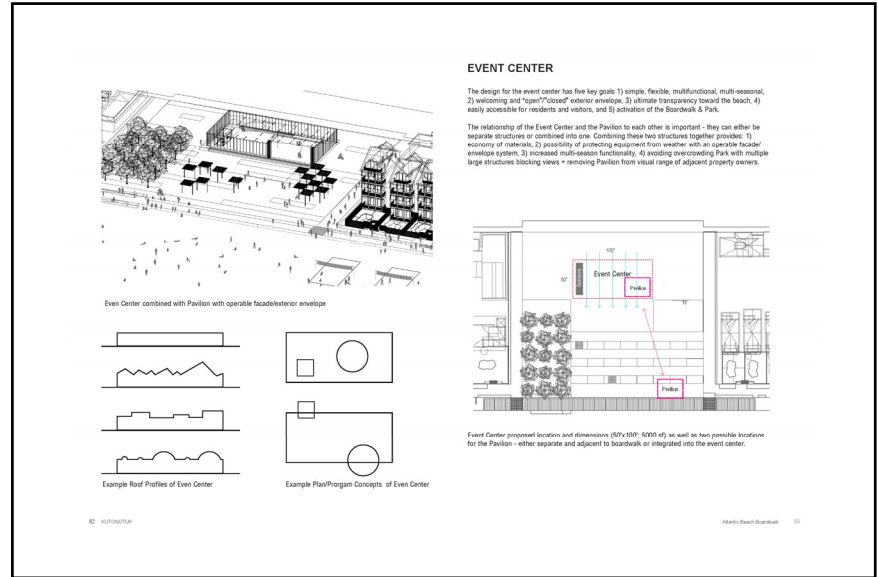
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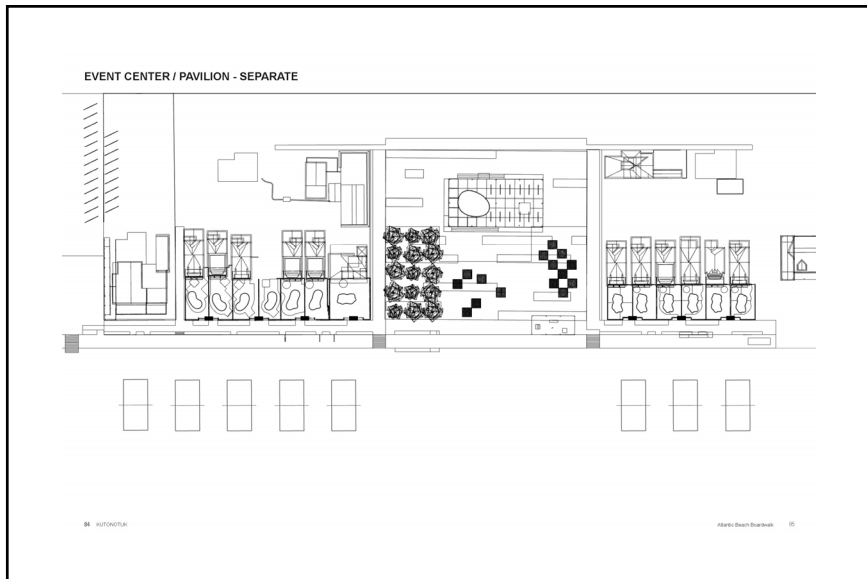
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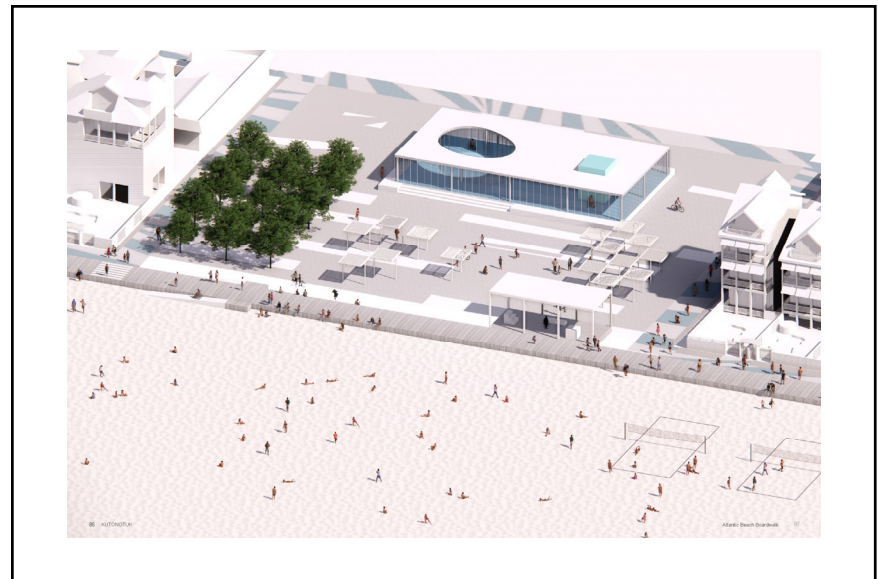
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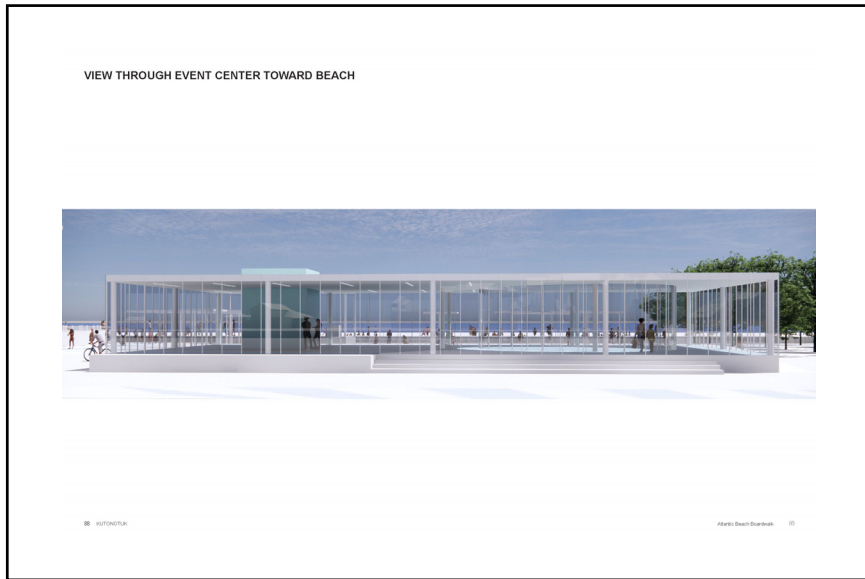
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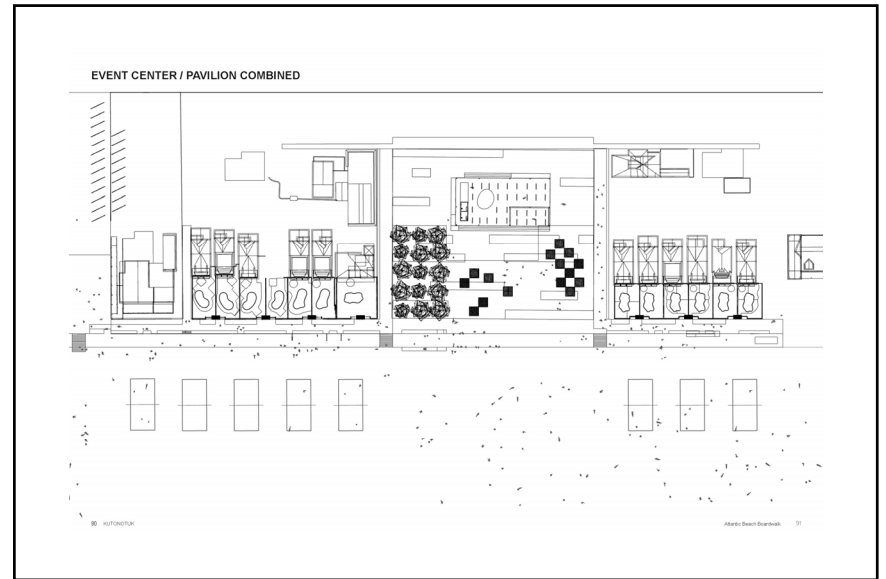
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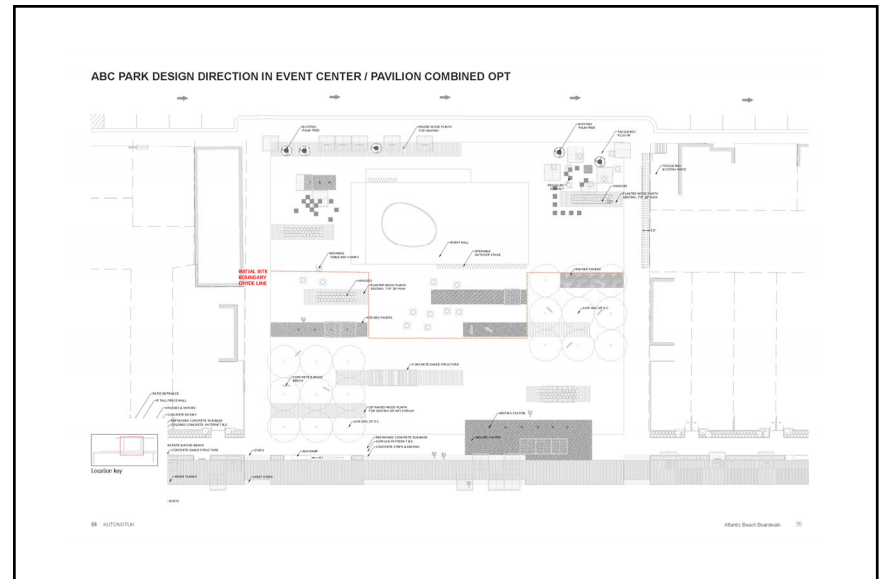
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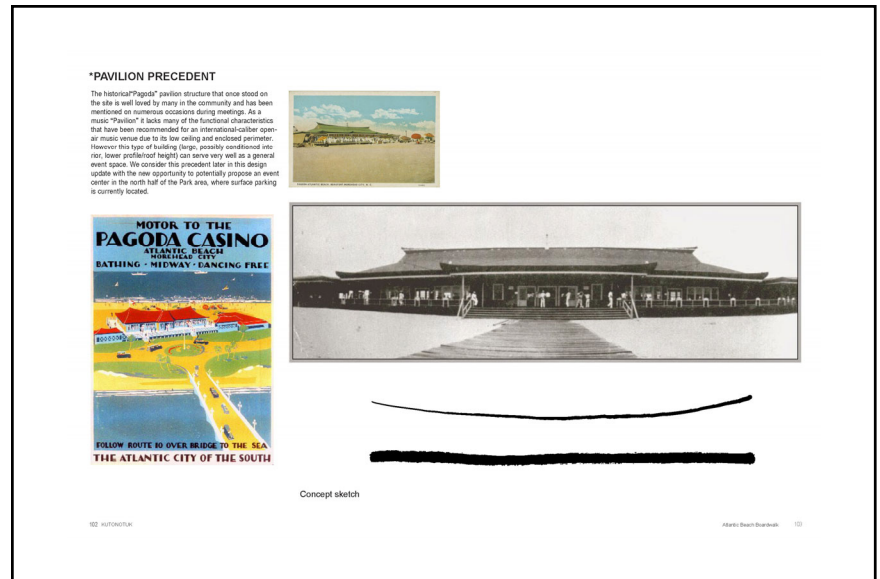
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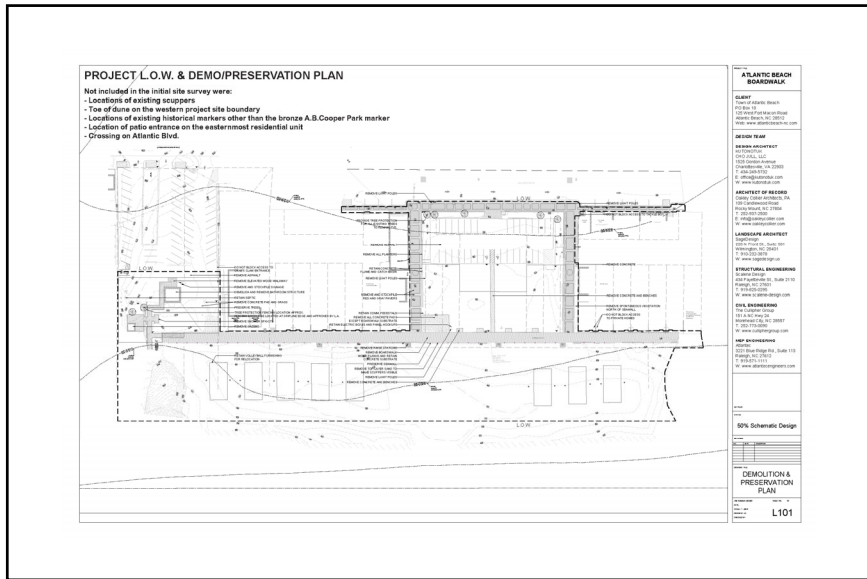


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FINAL DRAFT FOR REVIEW

TOWN OF ATLANTIC BEACH, NORTH CAROLINA



WATER TREATMENT PLANT ASSESSMENT

December 2021



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Town of Atlantic Beach, North Carolina Water Treatment Plant Assessment

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1.0 – EXECUTIVE SUMMARY

1.1 – INTRODUCTION & PURPOSE

On October 7, 2021, Engineers from Municipal Engineering, Inc (ME) visited the water treatment facility. The purpose of the visit was to evaluate and provide a condition assessment of the facility. We want to thank Mr. Leghe Gerald, Water Supervisor, and Mr. Marc Schulze, Public Services Director, for meeting us at the water plant. Their experience and historical knowledge of the facility were extremely helpful in preparing this report. Our initial impression is that the facility is well maintained, considering the limited staff and harsh beach environment in which the facility is located.

2.0 – EXISTING WATER INFRASTRUCTURE

2.1 WATER SYSTEM

The Town of Atlantic Beach, located in southern Carteret County on Bogue Banks, owns and operates a 2.5 MGD water treatment facility at 101 East Drive. The treatment and water distribution system consists of approximately 50-miles of water mains, appurtenances, three (3) elevated water storage tanks, and six (6) deep wells that withdraw water from the Castle Hayne Aquifer. The Town has an emergency connection to the water system at Pine Knoll Shores to the west.

According to the 2020 Local Water Supply Plan on file with NCDEQ, the Town has 2,719 residential, 190 commercial, and 10 institutional meter connections to its water distribution system. The average daily flow for 2020 was 0.72 million gallons per day (MGD) which peaked at 1.614 MGD during July, which would be considered peak tourist season.

2.1.1 Castle Hayne Aquifer

According to the United States Geological Survey: *'The Castle Hayne aquifer is an eastward sloping and thickening wedge of limestone and sandstone, located in a 12,500 sq mi area in the eastern part of North Carolina. The Castle Hayne aquifer is the major source of freshwater for much of coastal North Carolina, where the aquifers underlying the Castle Hayne contain saltwater.*

The water within the aquifer is generally hard (121 to 180 mg/L as calcium carbonate) or very hard (greater than 180 mg/L). The "hard" water, while safe to drink, contributes to issues with taste and has a negative impact on plumbing fixtures and piping, can cause fabrics to break down more quickly during laundry, and causes problems with hair and skin, which may cause dandruff and instigate dry skin problems such as eczema.

2.1.2 Disinfection By-Products

It should also be noted that the wells that serve Atlantic Beach have levels of organics higher than most wells further inland, which contributes to Disinfection By-products (DBPs). According to EPA, exposure to DBP components over many years may cause problems with the liver, kidneys, or central nervous system and cause an increased risk of cancer or other health effects.

Disinfection By-Products such as Trihalomethanes (THM) and Haloacetic Acid (HAA) are formed as a result of a combination of chlorine residual, organic material in the water and the effects of time (water-age). Currently, the maximum contaminant level (MCL) for Total Trihalomethanes (TTHM) is 0.080 mg/L, and Halocetic acids (HAA5) is 0.060 mg/L. Mr. Gerald indicated that the Atlantic Beach water system had seen recent violations of both contaminants.

Since the water distribution system must maintain a certain level of chlorine residual to ensure proper disinfection and prevent the public from being exposed to more acute contaminants such as e-coli, the only current option available to the Town is to reduce water age is via aggressive hydrant flushing. An alternative is to begin using chloramines as a disinfectant. It should be noted that controlling water age in a system such as Atlantic Beach is more problematic due to the long and expanse of lines of nearly 5-miles. The service area is from Fort Macon State Park to Pine Knoll Shores.

Chloramines are a combination of ammonia with chlorine. The ammonia binds the chlorine to keep it in solution longer, unlike straight chlorine, which dissipates quickly when exposed to air. Mr. Gerald has indicated the Town intends to switch to chloramines in March of 2022, which should help with the DBP issues.

2.2 WATER TREATMENT PLANT

Much of the treatment facility was constructed in 1981; therefore, many components are well past their useful life, typically 20-years for equipment and 40-years for piping.

2.2.1 Water Softening

The water softening component consists of five (5) pressure vessels that use the ion-exchange process to soften water. The hard water (generally rich in calcium and magnesium ions) is piped through a column filled with sodium-containing zeolites in the ion exchange processes. The zeolites trap the calcium and magnesium ions and release sodium ions in their place, which diffuses into the bulk water solution. The system manufactured by Refinite Water Conditioning Company of Rock Hill, South Carolina, was installed approximately 30-years ago.

2.2.2 Filtration

The filtration stage of the treatment process uses two (2) GAF Bag Filter units to remove small particles and organic and inorganic material from the water. The filter utilizes fabric bags that sit inside a filter housing, and as the bag fills with water, it seeps through the filter's tiny holes, leaving unwanted contaminants. The filter bags are mounted vertically and attached to the cartridge via a mechanical seal. Usually, the bags are changed once they become full of particulate matter; the replacement frequency depends on contaminants in the source water. A picture depicting the inside of the filter and the various components is shown in *Figure 1*.

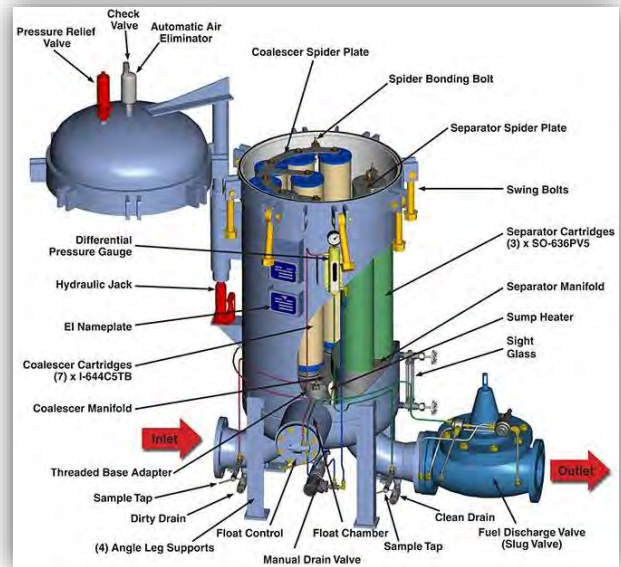


Figure 1

2.2.3 Fluoride Feed System

The Town of Atlantic Beach feeds fluoride to the drinking water as a public health measure to prevent dental cavities, which has been a common practice for many years. The system utilizes a mixing tank and metering pump to feed fluoride into the water distribution system. The Town currently uses bagged powder Sodium Fluoride for this purpose.

Sodium fluoride (NaF) is an inorganic compound with the formula NaF. It is used in trace amounts in the fluoridation of drinking water, in toothpaste, in metallurgy, and as a flux, and is also used in pesticides and rat poison. It is a colorless or white solid that is readily soluble in water. The chemical in either its powdered solid-state or mixed with water is highly acidic and should be used cautiously to prevent bodily injury or death.

2.2.4 Corrosion Control

The Town utilizes polyphosphate as a method of corrosion control. It is based on the theory that adding phosphate to finished water will result in the formation of low-solubility lead-phosphate complexes on interior pipe surfaces. The protective layer acts as a barrier to corrosion and scaling, reducing the dissolution of lead into the water.

2.2.5 Clearwell

The Town utilizes a 500,000-gallon Clearwell to store filtered water prior to disinfection and being conveyed to the water distribution system. Before the filtered water enters the Clearwell tank, the water passes through a "Tray Aerator." A water-fall or multiple tray aerator consists of several trays with perforated bottoms, arranged vertically in series. Water flowing through a riser pipe is discharged through perforated pipes into the topmost trays, and after flowing down through each of the lower trays, it is collected in a basin provided at the base. During the downward flow through trays, water comes into contact with atmospheric air; thus, aeration occurs.

Aeration water treatment is effective for the management of dissolved gases such as radon, carbon dioxide, some taste and odor problems such as methane and hydrogen sulfide, as well as volatile organic compounds, like MTBE or industrial solvents. It is also effective in precipitating dissolved iron and manganese. The Town utilizes aeration to reduce the "sulfur smell" of the water.

2.2.6 Disinfection

The Town utilizes Sodium Hypochlorite (bleach) to disinfect the water before distribution into the system. Currently, the liquid solution is pumped into the finished water using peristaltic pumps. Maintaining a chlorine residual within the distribution system is essential to prevent bacteria such as e-coli from developing and protect public health.

2.2.7 High Service Pumps

The treatment facility utilizes four (4) vertical turbine pumps which convey finished water into the distribution system. The pumps are mounted in a metal can "pot" below grade. See *Figure 2*. The pumps use seal water to provide lubrication and flush the mechanical seals and packing boxes.

The discharge piping for each pump contains an air-release valve with the discharge pipe to the floor, swing check valve, and handwheel operated gate valve to isolate the pumps for service.

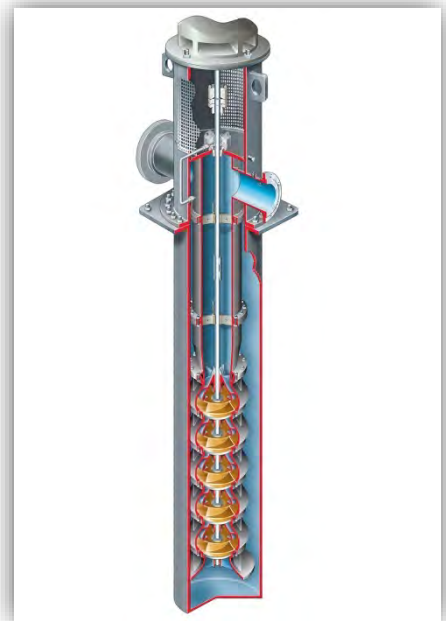


Figure 2

3.0 EVALUATION OF THE FACILITY

3.1 Overall Assessment

The Atlantic Beach Water Treatment Plant buildings and site appurtenances appear to be in good condition and well maintained. The facility's overall appearance indicates that the management and staff diligently maintain the facility. Given the harsh coastal environment and limited staff, the team should be commended for keeping the facility painted and presentable.

3.1.1 Property

The property in which the treatment facility is located at 101 East Drive contains approximately 0.95-acres. The property was conveyed to the Town in April of 1983 from A & J Investment Company, Inc. (Deed Book 517, Page 275 (*Appendix A includes a copy of the deed and tax card*)). The property borders roadways on three sides: East Terminal Blvd to the south, East Drive to the west, and East Bogue Blvd. to the North. The property is adjacent to residential lots to the east; the Meri Gonner Gibbs property contains a single-family dwelling. The Lillian M. Young property faces E. Terminal Blvd. and is currently vacant.

The existing property is full of treatment and storage components related to the Town's water system. To provide a "lay-down" area for materials or provide temporary treatment units, the Town may wish to contact the owners of the Young property, which faces E. Terminal Blvd. Additionally, the area across East Drive or the area formally known as the "circle" could be used to store equipment during construction temporarily. (See Appendix B, which includes a "Google Earth" ® view of the treatment plant and surrounding properties.)

3.1.2 Ion Exchange Water Softening Units

The Ion Exchange Water Softening Units were manufactured by Refinite Water Softening Company of Rock Hill, SC. Based on our research of the company, we are uncertain if the company mentioned above still sells and services this type of softening unit. The existing Ion Exchange pressure vessels appear to be in good condition structurally. There are two options to addressing the softening units' condition: 1) rehabilitation or 2) full replacement.

3.1.2.1 Rehabilitation

Option 1 is to rehabilitate the existing softener units. The ORC noted the softeners were installed approximately 30-years ago, and he has recurring issues with the solenoids, which operate the automatic valves, regularly overheating and burning out. It is recommended that an alternative to this valve



arrangement be investigated and an option found to reduce the operations and maintenance cost of frequently replacing the solenoids.

The influent, effluent, and backwash piping is a combination of ductile iron and PVC. The ORC has expressed a desire to replace all pipe components with PVC pipes of the appropriate pressure rating. The fittings and valves will need to remain as ductile iron, but changing the pipe will significantly reduce the amount of painting to be accomplished regularly with the Town's limited staff.

One area of great concern at each softener vessel is the severe deterioration of the supporting structure for the pressure tanks and some piping near the building's floor (*Figure 3*). The tanks are supported by structural "C" channels welded to steel plates bolted to the floor. The steel plates are currently resting on the concrete housekeeping slab and show signs of severe corrosion. These should be replaced as soon as possible.

We recommend providing temporary support for each tank and cutting the existing "C" channel from the pressure tank, and welding a new "C" channel in its place. This operation must be performed with great care to avoid cutting into the pressure vessel during replacement. Additionally, we recommend that the concrete slab and anchor bolts beneath each leg are inspected and the mounting bolts replaced if necessary. If the mounting bolts are found to have extensive corrosion, we further recommend the bolt be removed from the concrete and replaced with another bolt of equal or greater size utilizing a chemical anchor. The bottom of the mounting plate should be primed, and a non-metallic spacer should be installed between the mounting plate and the concrete housekeeping pad.

Each softening unit should be disconnected from the piping system, "zeolite" media be removed, and the interior and exterior of each tank carefully inspected for corrosion. It may be possible to rehabilitate each tank individually while allowing the remainder of the softening units to operate. However, performing the necessary work on all the tanks at once may be more cost-effective. In that case, it is recommended that a truck-mounted softener unit be installed and flow diverted during the construction to provide softening during the performance of the rehabilitation work.

Once each tank is removed and disconnected from service and all media is removed, the tank should be grit blasted or sandblasted to remove all paint and mill scale. The metal surfaces shall be blasted



Figure 3



Figure 4

to an SSPC-SP10 (Society for Protective Coatings) near a white blast finish to ensure proper cleaning. The blasted surfaces should be primed on the same day of cleaning and be free of dust, oil, or moisture at the time of painting. All prime and finish coats of paint shall comply with the latest edition of the NSF/ANSI Standard 61 for structures in contact with potable water. Upon completion of the painting operation, each tank should be disinfected in accordance with AWWA C-652 Method 2.

While the water-softening units (*Figure 4*) are out of service, we recommend that the "Zeolite" media, solenoids, and valves (including the multi-port valves) be replaced with a different system and all piping be changed from ductile iron to PVC of the proper pressure class. The control panel and wiring must be adjusted to a system compatible with the modified equipment. Each valve, fitting, and coupling should be inspected and replaced as necessary while the system is out of service.

3.1.2.2 Replacement

Option 2 is to provide a complete replacement of the Ion Softening units. We have contacted at least one of the leading manufacturers of ion exchange systems to obtain recommendations and cost data to provide a complete replacement of the softening units. Their recommendation is to install three (3) new ion-exchange softeners rated at 1,750 GPM and will include the following components:

- Schedule 80 PVC header-lateral inlet and outlet piping
- Cation exchange softening resin (NSF Approved) to a depth of 48-inches
- Graded support gravels
- Schedule 80 PVC underdrain
- System valves, including electrically actuated wafer butterfly valves for system regeneration
- Effluent flow meters on each vessel
- Fully automated PLC control system and panel
- Brine delivery and dilution components, including brine pump, brine meter, valves, check valves, etc.
- Bypass/blend components, including flow meter, throttling service valves, and modulating control valve.

3.1.3 Existing Bag Filters

According to the ORC, the bag filter pressure vessels have not been opened and inspected in the last 15-years. The existing filters were manufactured by GAF (General Aniline & Film), founded in 1886 (Figure 5). We understand that the company no longer supports the 40-year old bag filter unit. The Town has not opened the filter units as the seal kit is no longer available, except through unreliable sources such as eBay. Since the bags have not been replaced in the past 15-



Figure 5

years, we

suspect they may have deteriorated to the point of disintegration. The lack of filtration may cause organic materials not to be filtered from the water. The combination of chlorine, water age, and the lack of filtration may significantly contribute to disinfection by-products.

We recommend replacing these units with three (3) anion pressure vessels. The three units will be rated at 1,750 GPM and equipped with the following:

- Three (3) painted carbon steel pressure vessels
- Schedule 80 PVC header-lateral inlet distributor
- Schedule 80 PVC header-lateral and lower cleaning distribution grids
- Thermax macroporous ion-exchange resin



Figure 6

- 15-inch graded support gravel
- System valves, including electrically operated wafer butterfly valves for system regeneration
- Vessel effluent flowmeters
- PLC Control System
- Brine Delivery and dilution skid
- FRP Brine maker/salt storage silo

These units can be obtained in a vertical configuration and installed in the place of the existing bag filters, as shown in (Figure 6) above.

The anion vessels should significantly reduce the organic and color load, causing the THM and HAA issues within the water distribution system. However, we recommend analyzing the raw water to determine which media is the most effective for the Atlantic Beach facility.



Figure 7

3.1.4 Fluoride Feed System

The existing fluoride feed system described in Section 2.2.3 of this document appears to be in good repair and operating correctly. As mentioned previously, sodium fluoride is highly acidic and requires great care when handling the dry material and mixing batches of a fluoride solution. (Figure 7)

We recommend installing a more permanent concrete housekeeping pad to support the tank.



Figure 8

3.1.5 Corrosion Control Feed System

The polyphosphate corrosion control chemical addition, described in Section 2.2.4 of this report, appears to be in good working order. However, we recommend the 55-gallon carboy be installed on a concrete housekeeping pad. (Figure 8)

3.1.6 Clearwell

As discussed previously in Section 2.2.5, the existing 500,000-gallon concrete Clearwell appears to be in good condition and has been well maintained by Town staff. As noted, the Clearwell has a tray aerator installed atop the tank (Figures 9 & 10) to oxidize the gases and reduce the sulfur smell of the water.

The ORC indicated that maintenance of the trays consists of periodic pressure washing off-site to remove any biological growth from the trays. The tray aerator is housed within a pre-painted aluminum skinned structure, with louvered vents and expanded metal screens. The structural frame consists of painted mild steel angle iron. The structure is accessed via a ladder on the side of the Clearwell and an aluminum door on the cover.

During our visit, it was noted that there was some corrosion of the painted mild steel frame surfaces and aluminum near the top of the structure. Some of the corrosion may be a galvanic reaction to dissimilar metals, but it is believed that the majority is caused by the salt air environment existing on the coast. The ORC has suggested replacing the steel structural components with aluminum, which is possible; however, more significant structural members will most likely be required because of the high wind environment.



Figure 9



Figure 10

We recommend the Town undertake this project as a part of a more significant upgrade to the facility. Additionally, the expanded metal screens should be replaced with the EPA recommended #24 mesh screen (opening size 0.0277-inches) per their standard recommendation for potable water storage.

3.1.7 Disinfection

The disinfection for the water system utilizes sodium hypochlorite (NaClO - bleach) fed by a peristaltic metering pump (*Figure 11*) with a second pump for redundancy.



Figure 12



Figure 11

The metering pumps appear to be relatively new and in good operating condition. The bleach solution is pumped from an adjacent polyethylene tank (*Figure 12*). The only issue noted by the ORC was the internal tubing, which is considered a wear item.

A peristaltic pump, also commonly known as a roller pump, is a type of positive displacement pump used for pumping a variety of fluids. The fluid is contained in a flexible tube fitted inside a circular pump casing. Most peristaltic pumps work through rotary motion, though linear peristaltic pumps have also been made. The rotor has several "wipers" or "rollers" attached to its external circumference, which compress the flexible tube as they rotate by the part of the tube under compression is closed, forcing the fluid to move through the tube.

Additionally, as the tube opens to its natural state after the rollers pass, more fluid is drawn into the tube. This process is called peristalsis. Typically, two or more rollers will be compressing the tube, trapping a body of fluid between them. The body of liquid is transported through the tube toward the pump outlet. Peristaltic pumps may run continuously or be indexed through partial revolutions to deliver smaller amounts of fluid.

3.1.8 High Service Pumps

The high service pumps consist of four vertical turbine pumps mounted within a steel "pot" enclosure, as noted in Section 2.2.7 of this document. The pumps appear to be at least 20-years old and

have most likely reached their useful life. However, good quality, well-maintained vertical turbine pumps have been known to last far longer than the published useful life.

The electric drive unit (motor) is mounted above the floor, as shown in (Figure 13), sits atop the driveshaft, and is sealed utilizing a seal water system vs. a mechanical seal. Seal water systems were quite common in older pumps but are typically not used to advance engineered mechanical seals.

Vertical Turbine pumps are highly efficient and are commonly used for clean water applications to boost the water pressure on municipal water systems. The pump impellers or "bowls" are mounted to the shaft, generally in series depending on the pumping conditions. The bowls reside within the pump column, conveying water to the discharge point above the floor. See (Figure 14)

The high service pumps in Atlantic Beach have some electrical junction boxes that must be addressed immediately. The junction boxes are close to the water seal, and the air release valve discharges

at each pump, thus creating a safety hazard. The discharge piping, valves, and flanged joint fittings appear to be in good shape and recently painted.

Since the pumps are past their useful life, it is recommended that a pump test be performed on each pump to prioritize the order of replacement, beginning with the least efficient pump. It is also recommended that the new pumps utilize mechanical seals rather than the old seal water technology. The change will eliminate much of the water standing on the concrete floor.

The removal of the pumps will be problematic and will most likely need to be disassembled for removal. Typically, pumps arranged in this manner either have an overhead



Figure 13

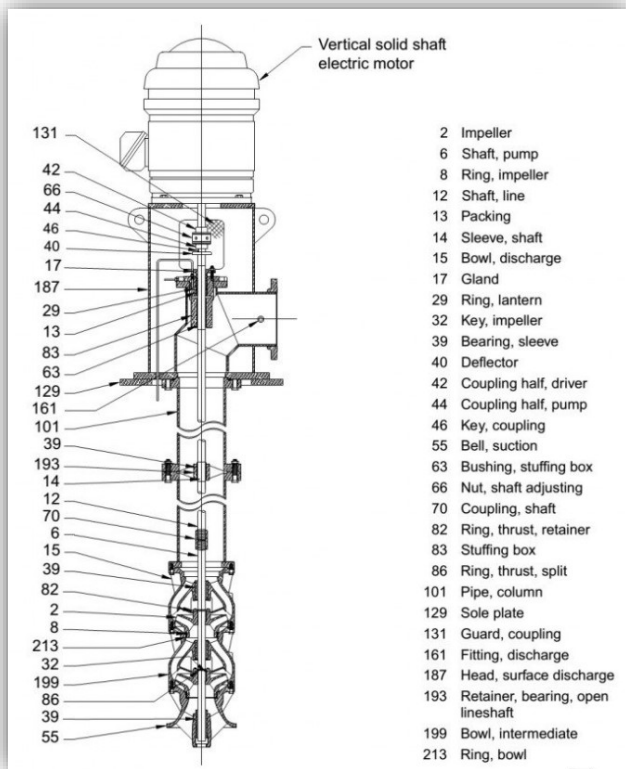


Figure 14²



hoist and trolley to extract the pumps or have a removal skylight centered over each pump to provide removal by a crane.

3.1.9 Elevated Water Tank (Support Column Area)

We accessed the support column area (*Figure 16*) below the elevated water tank at the treatment facility during our site visit. The ORC noted the old high service pumps, which are no longer used. This equipment could be removed and sold as scrap as desired by the Town. Other equipment within the area was the control unit for the AMR water meters, for which the antennas are mounted just below the tank bowl.

The ORC warned us not to step on the existing grating, which sits within a recess within the cast-in-place floor slab upon entering the area. It was noted during our visit that one place of the grating had collapsed. We recommend that the deteriorated grating be repaired as it will continue to be a safety hazard until corrected.

The ORC called our attention to the tank inlet/outlet piping and overflow condition. The fittings which support the overflow piping are severely deteriorated and need to be replaced and painted. Otherwise, the area was well lit and could be used as additional equipment storage once the grating is repaired (*Figure 15*)



Figure 15

4.0 EVALUATION SUMMARY

4.1 Overall Summary

The existing water treatment facility is in good condition considering its age and harsh salt-air environment. Much of the equipment is at or well beyond its useful life and should be replaced on a systematic basis that is priority-driven. If the Town has not done so, we recommend developing a



Figure 16

comprehensive Capital Improvements Plan (CIP). Capital Reserve is established within the budget each year to fund the items that need replacement.

4.2 Priority Items

We recommend that the following items listed below to be given priority for planning purposes in order of magnitude.

4.2.1 Elevated Tank (Support Column Area)

The corroded fittings at the base of the overflow piping need to be replaced soon to avoid failure. Additionally, we recommend removing surplus equipment and replacing or securing the floor grating to eliminate the present safety hazard.

4.2.2 Ion Exchange Softening Tanks

Several pressing issues related to the Ion Exchange Softening System need to be addressed soon. The persistent problems with the solenoid valves will continue to cost the Town both time and labor unless they are addressed. There are several areas where the piping needs to be repaired. Additionally, the support legs need to be replaced, and there are several areas where pipes enter and leave the pressure vessels that need to be addressed. It does not appear that a catastrophic failure is imminent; continued deferred maintenance of these issues will result in ongoing problems and the associated labor and repair costs.

We believe that the rehabilitation of the tanks, valves, and piping is not a cost-effective solution and will only extend the life of the tanks by another five to ten years. We recommend completely replacing the softening system and conversion to a Cation exchange softening resin. Installation of the new equipment and PLC-based control system will significantly improve the treatment efficiency and reduce the operations and maintenance costs.

4.2.3 Bag Filters

We recommend removing these units because the existing GAF Bag Filters were installed in the original treatment system. The manufacturer no longer supports this model with replacement parts. We suspect that since the bags have not been replaced due to the manufacturer's lack of availability of the seal unit, these filters are doing little to filter the water. Replacement of the existing units with new anion vessels with the Thermax macroporous exchange resin will most likely reduce the organics in the water, thereby helping with the THHM and HAA issues.

4.2.4 High Service Pumps

We recommend the electrical junction boxes and exposed wiring issues be addressed immediately due to safety hazards. Additionally, a performance test should be performed on each vertical turbine pump, and priority replacement of the units be based upon pump performance, weighed with maintenance frequency. The pumps should be replaced with units that utilize a mechanical seal.

As previously mentioned, the change out of the pumps will be problematic due to the lack of an overhead hoist and trolley or removable skylights overhead. Additionally, the "pot" where the pumps reside should be thoroughly inspected for corrosion and addressed while the pump is out of service.

4.2.5 Corrosion Control Feed System

We recommend that the polyphosphate tank be placed on a concrete housekeeping pad.

4.2.6 Clearwell

The structural components of the tray aerator components should be addressed soon. We do not consider this an item that needs to be accomplished immediately. However, this improvement will reduce the maintenance workload of the staff. Replacement of the structural steel members with aluminum should address the galvanic reaction and minimize corrosion. However, the aluminum structural components will most likely need to be upsized to accommodate the high wind loading. We also recommend replacing the louver screens with a #24 mesh screen.

4.3 Treatment Plant Site

Buildings, treatment units, and parking completely consume the current site on East Drive, leaving no room for future expansion. We recommend the Town consider acquiring nearby vacant properties for expansion purposes. Notwithstanding that the land costs in the area are at a premium, we believe it would be a prudent step towards the future.

4.4 Alternate Treatment Technologies

As an alternative, the Town may wish to consider alternative technologies for water treatment. Reverse Osmosis (RO) may be an alternative replacement. However, a comprehensive analysis of the raw water would need to be performed to determine the suitability of this technology.

5.0 COST AND CONSTRUCTION ANALYSIS

5.1 Constructability and Challenges

The availability of land for construction and material storage is very limited. Additionally, the facility must continue to produce water during construction. Therefore, a truck or skid-mounted temporary treatment system must be employed during the demolition of the old equipment and the installation and start-up of the new system. We estimate the construction time to be one-year, with the first three months utilized to mobilize and acquire the material and equipment needed for the project. The work is recommended to occur through the fall and winter months to avoid the peak tourist season, and water demands are lower.

Additionally, it is recommended that the demolition and construction of the softeners and filters be performed within the same project scope and the equipment be provided by the same vendor to ensure the PLC control units work together. The Tonka Water System used as a basis to prepare this assessment is one of many quality manufacturers, and we would encourage competition in compliance with NCGS §133.3.

5.2 Material and Labor Availability

Presently, many of our construction projects are being delayed by several months due to the inability to procure materials and difficulty finding labor. The difficulties affect the Contractor's ability to procure pre-cast concrete items, electrical control panels, pipes, generators, etc. Suppliers are not holding prices more than ten to thirty days and, in the case of steel, as little as 24-hours. Contractors are trying to project price increases out 60 to 90-days from the time the project is bid until they receive the Notice of Award.

We anticipate the NCDEQ-Division of Water Infrastructure to have considerable funds available for the Spring 2022 funding cycle as part of the American Rescue Plan. While funding may be plentiful, it also has the effect of a substantial number of capital projects being bid simultaneously, which tends to drive up pricing even more. We anticipate the pricing to increase next year and the material shortage to continue into the near future. Therefore, the cost opinion provided is limited to the pricing obtained when this document is prepared, and the costs should be re-visited before applying for funds.

5.3 Opinion of Probable Costs

Item No.	Description	Qty.	Units	Unit Price	Total Price
General Conditions					
1	Mobilization/Bonds/Insurance/Demobilization (5% of Bid)	1	LS	\$194,850	\$194,850
2	General Conditions	12	MO	\$39,244	\$470,925
Total General Conditions					\$665,775
Elevated Tank (Support Column Area)					
1	Drain Tank/Piping Demo	1	LS	\$24,150	\$24,150
2	Remove High Service Pumps	1	LS	\$7,849	\$7,849
3	Replace Overflow Pipe/Support	1	LS	\$36,215	\$36,215
4	Remove/Replace grating	1	LS	\$26,485	\$26,485
Total Elevated Tank (Support Column Area)					\$94,699
Replacement of Softeners & Filters					
1	Temporary Treatment Plant Rental	9	MO	\$17,182	\$154,635
2	Demolition/Disposal	1	LS	\$57,875	\$57,875
3	Ion Exchange Softening Units	1	LS	\$1,078,341	\$1,078,341
4	Anion Pressure Filters	1	LS	\$1,316,017	\$1,316,017
5	Process Piping	1	LS	\$127,623	\$127,623
6	Electrical	1	LS	\$82,978	\$82,978
Total Replacement of Softeners & Filters					\$2,817,469
High Service Pumps					
1	Vertical Turbine Pump Replacement	4	EA	\$81,388	\$325,553
2	Inspection/Paint Pot	4	EA	\$5,712	\$22,849
3	Electrical	4	EA	\$10,425	\$41,639
Total High Service Pumps					\$390,101
Corrosion Control Feed Improvements					
1	Concrete Pad	1	LS	\$1,528	\$1,528
Total Corrosion Control Feed Improvements					\$1,528
Clearwell (Aeration Tower)					
1	Removal/Reinstallation	1	LS	\$17,363	\$17,363
2	Replacement Material	1	LS	\$9,189	\$9,189
Total Clearwell (Aeration Tower)					\$26,552
Grand Total all Construction					\$3,994,595
20% Contingency					\$798,919
Grand Total					\$4,793,514

The Opinion of probable costs above reflects the known market conditions as of the date it was prepared. The costs shown include 6.75% sales tax, labor, overhead, and profit. A more detailed cost breakdown can be found in Appendix A of this document.

5.4 Reverse Osmosis (RO) Option

Based upon our discussion with various vendors, they have indicated that RO Option would add \$1.2 to \$1.6 million to the overall construction budget. A more detailed analysis of the raw water needs to be performed to determine the feasibility of this option.



5.5 Rehabilitation of Existing Ion Exchange Tanks

We believe that existing Ion Exchange Softening Tanks could be rehabilitated; however, the costs associated with the endeavor would be at or near the cost would be equal to or exceed the cost of full replacement and only extend the life of the units another five to ten years.

6.0 ACKNOWLEDGEMENT AND REFERENCES

6.1 Acknowledgements

We wish to thank Mr. Marc Shulze for meeting us at the site and giving us an overview, especially Mr. Leghe Gerald, for being so generous with his time to take us around the facility and explain the issues he is facing. We have found that the operations staff understand the problems and solutions needed and provide a wealth of information. We greatly appreciate their time and assistance.

6.2 References

¹Lyke, WL, and Coble, R.W., 1987, *Regional study of the Castle Hayne aquifer of eastern North Carolina: US Geological Survey Open-File Report 87-571, 1 p.*

²<https://www.introtopumps.com/pump-designs/vertical-turbine-pumps/>

Appendix 1

Property Data



Carteret County

Property Data

Parcel Number: 637516938302000

Inquiry Date: 10/15/2021

DISCLAIMER: For confirmation of the number of buildings on each parcel, please contact the Carteret County Tax Office.

Property Info

PARCEL NUMBER: 637516938302000
OWNER: TOWN OF ATLANTIC BEACH
PHYSICAL ADDRESS 101 EAST DR
ATLANTIC BEACH
MAILING ADDRESS: PO BOX 10
ATLANTIC BEACH NC 28512
LEGAL DESCRIPTION: LOT 1-11 L38 BLOCK U ATLANTIC BEACH
DEED REF: 517-275
PLAT REFERENCE: -
NEIGHBORHOOD: 520011
SALE DATE:
SALE PRICE: \$0
ACREAGE: 0.952
LAND VALUE: \$494,500
EXTRA FEATURE VALUE: \$393,796

Building Info

BATHS:
BEDROOMS:
CONDITION:
EXTERIOR WALLS:
FLOOR FINISH:
FOUNDATION:
HEAT:
ROOF COVER:
ROOF STRUCTURE:
SQUARE FOOTAGE:
YEAR BUILT:
BUILDING VALUE: \$0
PARCEL VALUE: \$888,296

Sketches

Photos



RT 520011.007.000 TOWN OF ATLANTIC BEACH 2021 888,296 MKT 888,296 MKT CARD 001
 PID E 6375.16.93.8302000 MUNICIPAL EXEMPTION 888,296 PY Val USE 494,500 LAND 001
 PO BOX 10 ATLANTIC BEACH NC 28512 DEF BLDG 000
 CITY ATLANTIC BEACH FIRE DEED 517 275 AICUZ .952 ACRES OTHER 393,796 XFOB 003
 NBHD 52001100 USE 001700 MUNICIPAL EXEMP PL BK/PG PLAT RESCUE ADDRESS 0000101 EAST DR ATLANTIC BEACH 28512
 LEGAL: LOT 1-11 L38 BLOCK U ATLANTIC BEACH 16-11470 MISC PERMIT UNK 6/13/2016 PRINTED 10/05/2021 BY ALLENW 24,900
 0600267 MISC PERMIT UNK 1/30/2006 8/17/2006 85,000

Seq	Bldg Code	Description	Length	Width	Height	#Units	UT	Qty	Qual	UTPrice	Year	Adj1	Adj2	Adj3	Adj4	%Good	Value
001	000700	6 FT FENCE	740	1		1482.000	LF	1	0C	12.730	0000	.70	1.00	1.00	1.00	100.00	13,206
002	000300	WATERTANK ELEV.	4000	10		40000.000	UT	1	0C	8.020	0000	.70	1.00	1.00	1.00	100.00	224,560
003	000300	WATERTANK ELEV.	1500	10		15000.000	UT	1	0C	14.860	0000	.70	1.00	1.00	1.00	100.00	156,030

Seq	Zone	Code	Use	Description	#Units	UT	UTPrice	Adj1	Adj2	Adj3	Adj4	Nbhd	Adj	Eff Rate	Value
1	244	170	60	COMMERCIAL	2,585.000	1.00	1.00	1.00	1.00	1.00	1.00	1.000	2,026.639	494,500	

PRMT VERIZON WIRELESS IS ADD/REPLACING ANTENNAS.
 NOTES

NORTH CAROLINA, CARTERET COUNTY
The foregoing certificate(s) of Sharon Piner
is (are) certified to be correct. This instrument was pre-
sented for registration and recorded in this office in
Book 517 Page 275
This 11 day of May 1980 at 4:30 P.M.
Sharon Piner
Register of Deeds
By Sharon Piner
Assistant, Deputy

Excise Tax 0

Recording Time, Book and Page

Tax Lot No. Parcel Identifier No. 13-40E-4-1/20
Verified by County on the day of, 19.....
by

Mail after recording to Pat Mason

This instrument was prepared by Kenneth M. Kirkman, Attorney at Law, Morehead City, N. C.

Brief description for the Index Lots 10, 11, 38, Blk U, At. Beach

NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 10th day of April, 1980, by and between

GRANTOR	GRANTEE
A & J INVESTMENT COMPANY, INC.	THE TOWN OF ATLANTIC BEACH, an Incorporated North Carolina Municipality P. O. Box 10 Atlantic Beach, N. C. 28512

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Atlantic Beach, Atlantic Beach Township, Carteret County, North Carolina and more particularly described as follows:

Being all of Lots Ten (10), Eleven (11), Thirty Eight (38), Block U, as shown on the official map of the Town of Atlantic Beach, said map being recorded in Map Book 1, Page 131, Carteret County Registry.

This transaction is made in accordance with the terms of a contract of sale entered into between the parties, dated January 1, 1980.

Book 517 Page 275

The property hereinabove described was acquired by Grantor by instrument recorded in
Book 141, Page 71, and Book 303, Page 261

A map showing the above described property is recorded in Plat Book page.....

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

A. S. J. INVESTMENT COMPANY, INC.
(Corporate Name)
BY: *[Signature]*
President
ATTEST: *[Signature]*
Secretary (Corporate Seal)

USE BLACK INK ONLY
.....(SEAL)
.....(SEAL)
.....(SEAL)
.....(SEAL)

SEAL - STATE
NORTH CAROLINA, County.
I, a Notary Public of the County and State aforesaid, certify that Grantor,
personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my
hand and official stamp or seal, this day of 19.....
My commission expires: Notary Public

SEAL - STATE
NORTH CAROLINA, Carter County.
I, a Notary Public of the County and State aforesaid, certify that Anna C. Hogan
personally came before me this day and acknowledged that he is Secretary of
A.S.J. Investment Company, Inc. a North Carolina corporation, and that by authority duly
given and as the act of the corporation, the foregoing instrument was signed in its name by its
President, sealed with its corporate seal and attested by as its Secretary.
Witness my hand and official stamp or seal, this 1st day of April, 1983.
My commission expires: 9-19-86 Cary J. Ballard Notary Public

The foregoing Certificate(s) of
is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

REGISTER OF DEEDS FOR COUNTY
By Deputy/Assistant - Register of Deeds

Appendix 2

Aerial View of Plant



Atlantic Beach WTP

Overhead view of the Atlantic Beach Water Treatment Plant and surrounding area.



Google Earth

Legend

101 East Dr

N34°42'1.44"

E Bogue Blvd

E Bogue Blvd

101 East Dr

East Dr

East Dr

E Terminal Blvd

E Terminal Blvd

200 ft



Appendix 3

Opinion of Probable Costs



Appendix 3 Probable Cost Opinion

Item No.	Description	Qty.	Units	Material	Sales Tax 6.75%	Labor	Overhead 15.0%	Profit 5.0%	Unit Price	Total Price
General Conditions										
1	Mobilization/Bonds/Insurance/De mobilization (5% of Bid)	1	LS						\$194,850	\$194,850
2	General Conditions	12	MO			\$32,500	\$4,875	\$1,869	\$39,244	\$470,925
Total General Conditions										\$665,775
Elevated Tank (Support Column Area)										
1	Drain Tank/Piping Demo	1	LS			\$20,000	\$3,000	\$1,150	\$24,150	\$24,150
2	Remove High Service Pumps	1	LS			\$6,500	\$975	\$374	\$7,849	\$7,849
3	Replace Overflow Pipe/Support	1	LS	\$25,000	\$1,688	\$4,600	\$4,693	\$235	\$36,215	\$36,215
4	Remove/Replace grating	1	LS	\$17,500	\$1,181	\$4,200	\$3,432	\$172	\$26,485	\$26,485
Total Elevated Tank (Support Column Area)										\$94,699
Replacement of Softeners & Filters										
1	Temporary Treatment Plant Rental	9	MO	\$12,500	\$844	\$1,500	\$2,227	\$111	\$17,182	\$154,635
2	Demolition/Disposal	1	LS			\$50,000	\$7,500	\$375	\$57,875	\$57,875
3	Ion Exchange Softening Units	1	LS	\$735,000	\$49,613	\$147,000	\$139,742	\$6,987	\$1,078,341	\$1,078,341
4	Anion Pressure Filters	1	LS	\$897,000	\$60,548	\$179,400	\$170,542	\$8,527	\$1,316,017	\$1,316,017
5	Process Piping	1	LS	\$52,700	\$3,557	\$54,000	\$16,539	\$827	\$127,623	\$127,623
6	Electrical	1	LS	\$25,000	\$1,688	\$45,000	\$10,753	\$538	\$82,978	\$82,978
Total Replacement of Softners & Filters										\$2,817,469
High Service Pumps										
1	Vertical Turbine Pump Replacement	4	EA	\$56,500	\$3,814	\$10,000	\$10,547	\$527	\$81,388	\$325,553
2	Inspection/Paint Pot	4	EA	\$2,000	\$135	\$2,800	\$740	\$37	\$5,712	\$22,849
3	Electrical	4	EA	\$7,500	\$506	\$1,000	\$1,351	\$68	\$10,425	\$41,699
Total High Service Pumps										\$390,101
Corrosion Control Feed Improvements										
1	Concrete Pad	1	LS	\$300	\$20	\$1,000	\$198	\$10	\$1,528	\$1,528
Total Corrosion Control Feed Improvements										\$1,528
Clearwell (Aeration Tower)										
1	Removal/Resinstallation	1	LS	\$0	\$0	\$15,000	\$2,250	\$113	\$17,363	\$17,363
2	Replacement Material	1	LS	\$6,500	\$439	\$1,000	\$1,191	\$60	\$9,189	\$9,189
Total Clearwell (Aeration Tower)										\$26,552
Grand Total all Construction										\$3,994,595
20% Contingency										\$798,919
Grand Total										\$4,793,514

Appendix 4

Vendor Information





November 9, 2021

Michael McAllister
Municipal Engineering Services Co., PA
Municipal Engineering, Inc.
68 Shipwash Drive
Garner, North Carolina 27529
Office: 919-772-5393
Cell: 252-289-0781

RE: Atlantic Beach WTP
ridION Softeners and Organix™ System
Preliminary Proposal and Budgetary Estimate

Dear Mike,

In accordance with our understanding of the above project, Tonka Water, a Kurita brand, is pleased to provide information concerning the following process equipment. For this project, Tonka Water is proposing to replace the existing softeners and add anion vessels to reduce the organic and color load causing a THM HAA issue in distribution. I ran the following designs based on a 1.8MGD flow rate for salt consumption while upsizing piping etc.. for meeting the design flow rate of 2.5MGD. This allows for accurate design modeling while hitting the average flow <1mgd while also hitting the design flow of 2.5MGD.

I will add a separate latter to cover a sand filter as I feel this may not be warranted if the water plant has not yet experienced severe fouling of the resin or it is shown that the well pumps push silt/sand into the current ion exchange vessels. This would be seen in degraded effluent quality as well as head loss build up within the current ion exchange vessels.

Tonka Water RidION™ Ion Exchange System for Hardness Removal

Total Design Flow:	1,750 gpm
Total Treated Flow:	778 gpm
Total Bypass Flow:	972 gpm
Vessel Load Rate:	6 gpm/sf
Number of Vessels:	3
Dimensions:	7'-0" diameter x 12.45' overall max height
Working Pressure:	100 psi
Test Pressure:	130 psi



a Kurita brand

Resin - Depth: 48" inches

- Each vertical pressure vessel is to be constructed of carbon steel, ASME code stamped, and will include:
 - Schedule 80 PVC header-lateral inlet distributor with upturned elbows
 - Schedule 80 PVC header-lateral brine distribution grid
 - Cation exchange softening resin -- NSF approved
 - Graded support gravels
 - Schedule 80 PVC header-lateral underdrain with Tonka Water non-metallic gravel retaining nozzles (concrete subfill required by installing contractor)
 - Full interior finish painting; exterior blasted and primed at factory (finish painting by others on site)
- Additional components and services are included as follows:
 - System valves, including electrically(Bray) actuated Bray wafer butterfly valves for system regeneration
 - Ductile iron vessel facepiping (shipped loose for installation by others)((can be PVC)
 - Vessel effluent flow meters, one per vessel
 - Loss of head pressure gauge panel
 - Fully automated Allen-Bradley PLC control system and panel
 - Brine delivery and dilution components, including brine pump, brine meter, valves, check valves, and other components for a fully functional brine delivery and dilution system (shipped separately for installation by the installing contractor; interconnecting piping by others)
 - Bypass/blend components including flow meter, throttling service valves, and modulating control valve.
 - Freight
 - Field services consisting of installation inspection, media installation supervision, start-up and operator training

The budgetary price for this system is: \$ 735,000.00

Tonka Water Organix™ System for TOC Removal

Total Design Flow:	1750 gpm
Total Treated Flow:	1750 gpm
Total Bypass Flow:	None
Vessel Load Rate:	9.2 gpm/ft ²
Number of Vessels:	3
Dimensions:	9'-0" diameter x 12'-6" approx. overall height
Working Pressure:	100 psi





a Kurita brand

Test Pressure:	130 psi
Design Resin Capacity:	20,000 gal/ft ³
Resin Depth	36"

- Each vertical pressure vessel is to be constructed of carbon steel, ASME code stamped, and will include:
 - Schedule 80 PVC header-lateral inlet distributor with upturned elbows
 - Schedule 80 PVC header-lateral brine and lower cleaning distribution grids
 - Thermax macroporous ion exchange resin
 - 15" depth of graded support gravels
 - Schedule 80 PVC header-lateral underdrain with Tonka Water non-metallic gravel retaining nozzles (concrete subfill required by installing contractor)
 - Full interior finish painting; exterior blasted and primed at factory (finish painting by others on site)
- Additional components and services are included as follows:
 - System valves, including electrically actuated Bray wafer-style butterfly valves for system regeneration
 - Ductile iron vessel facepiping (shipped loose for installation by others)
 - Vessel effluent flow meters, one per vessel
 - Fully automated Allen-Bradley PLC control system and panel
 - Brine delivery and dilution skid, including factory mounted brine pump, brine meter, valves, check valves, and other components for a fully functional brine delivery and dilution system (skid shipped assembled for installation by the installing contractor; interconnecting piping by others)
 - Brine maker/salt storage silo, FRP construction
 - Freight
 - Field services consisting of installation inspection, media installation supervision, start-up and operator training

The budgetary price for this system is: \$ 897,000

We look forward to working with you on this water treatment project. If you have any questions, please feel free to call me at 612.289.0014

Sincerely,

Rick Mann

Senior Territory Manager



cc: Steven Young, Premier Water, LLC

Attachments: Marketing drawings



ION EXCHANGE SYSTEMS

Advanced Ion Exchange Technology



ADVANTAGES

- PLC-based regeneration controls
- Unique non-plugging, non-corroding regenerant distribution system

Unmatched experience in ion exchange processes

Tonka Water, a U.S. Water Brand's Ion Exchange systems solve a broad range of water treatment issues from uranium removal, to hardness and barium reduction. Ion Exchange systems incorporate the newest technologies in resin regeneration, guaranteeing an efficient and effective process with custom software for your system.

RidION™ conventional ion exchange for softening.

Pur-IX™ utilizes a multi-port valve for low wastewater volume and a compact system.

Organix™ is a pressurized, enclosed process that is customized specifically for organics removal.

Treatment:

- Arsenic
- Barium
- Hardness
- Nitrates/sulfate
- Organics
- Perchlorate
- Radium
- Fluoride
- Uranium



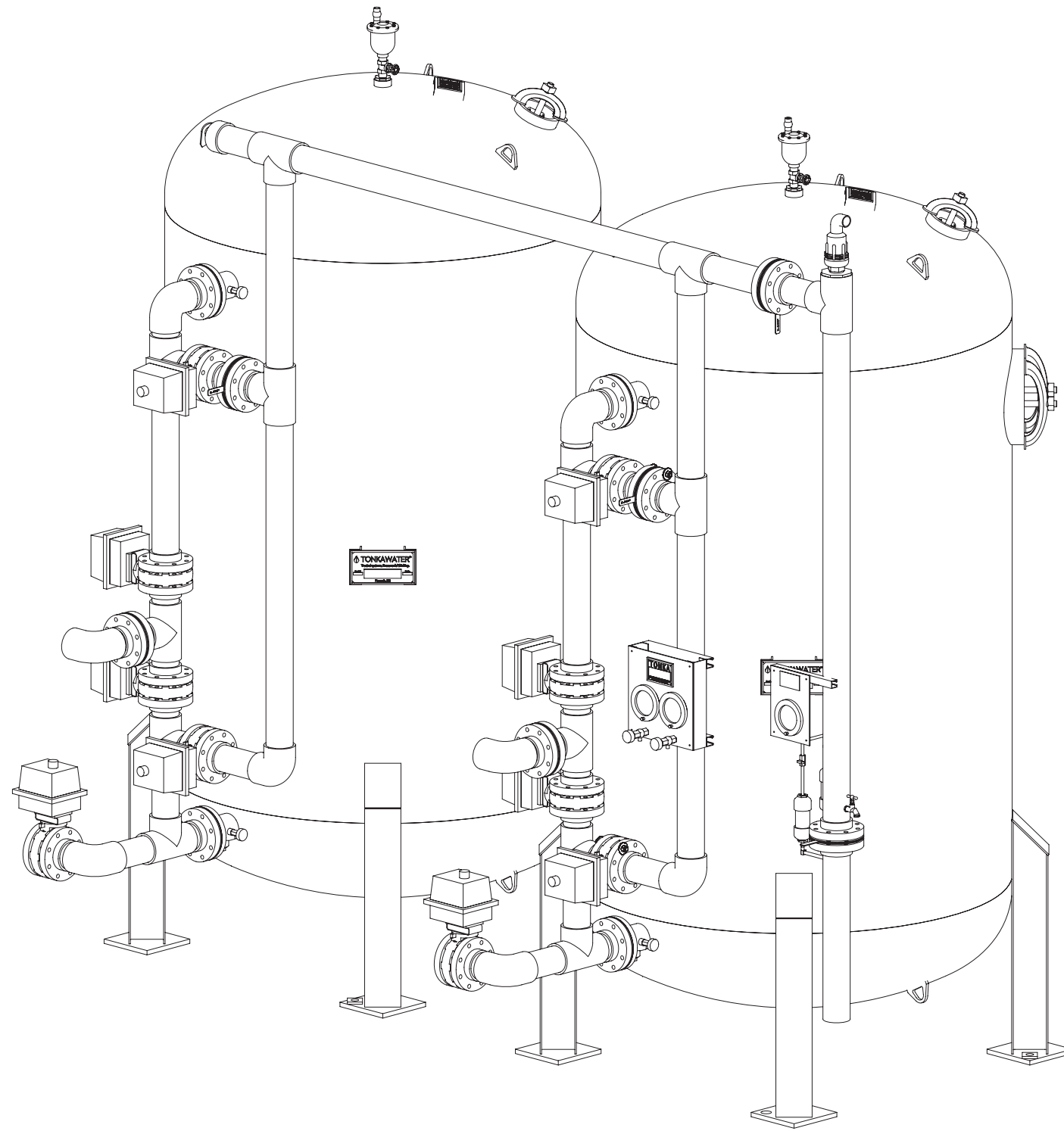
763.559.2837
www.tonkawater.com
 Tonka Water, a U.S. Water Brand





TONKAWATER™
A U.S. WATER BRAND

Organix™
Small Vessel - Traditional Piping
Catalog Drawing



ISOMETRIC VIEW

D			ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY TONKA EQUIPMENT COMPANY. DO NOT SCALE DRAWING		
DRAWN BY: RAC	START DATE: 01/29/2014	THICKNESS:	DWG. SCALE: 1:16	LENGTH:	
APPR. BY:	APPR. DATE:	APPROX. WEIGHT: 31498.5628			

TONKAWATER™
A U.S. WATER BRAND

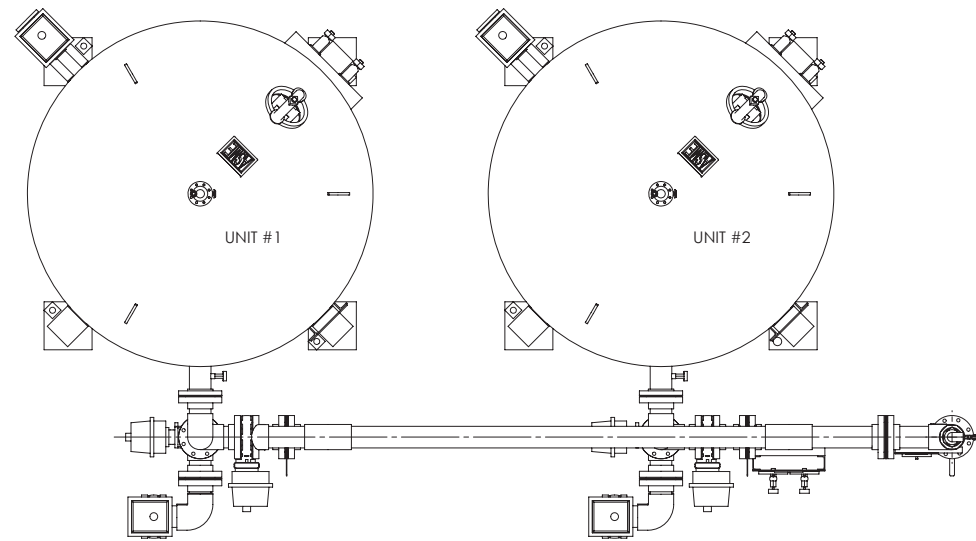
13305 WATERTOWER CIRCLE
PLYMOUTH, MN 55441
(763) 559-2837
www.tonkawater.com

ORGANIX™
SMALL VESSEL - TRADITIONAL PIPING
CATALOG DRAWING

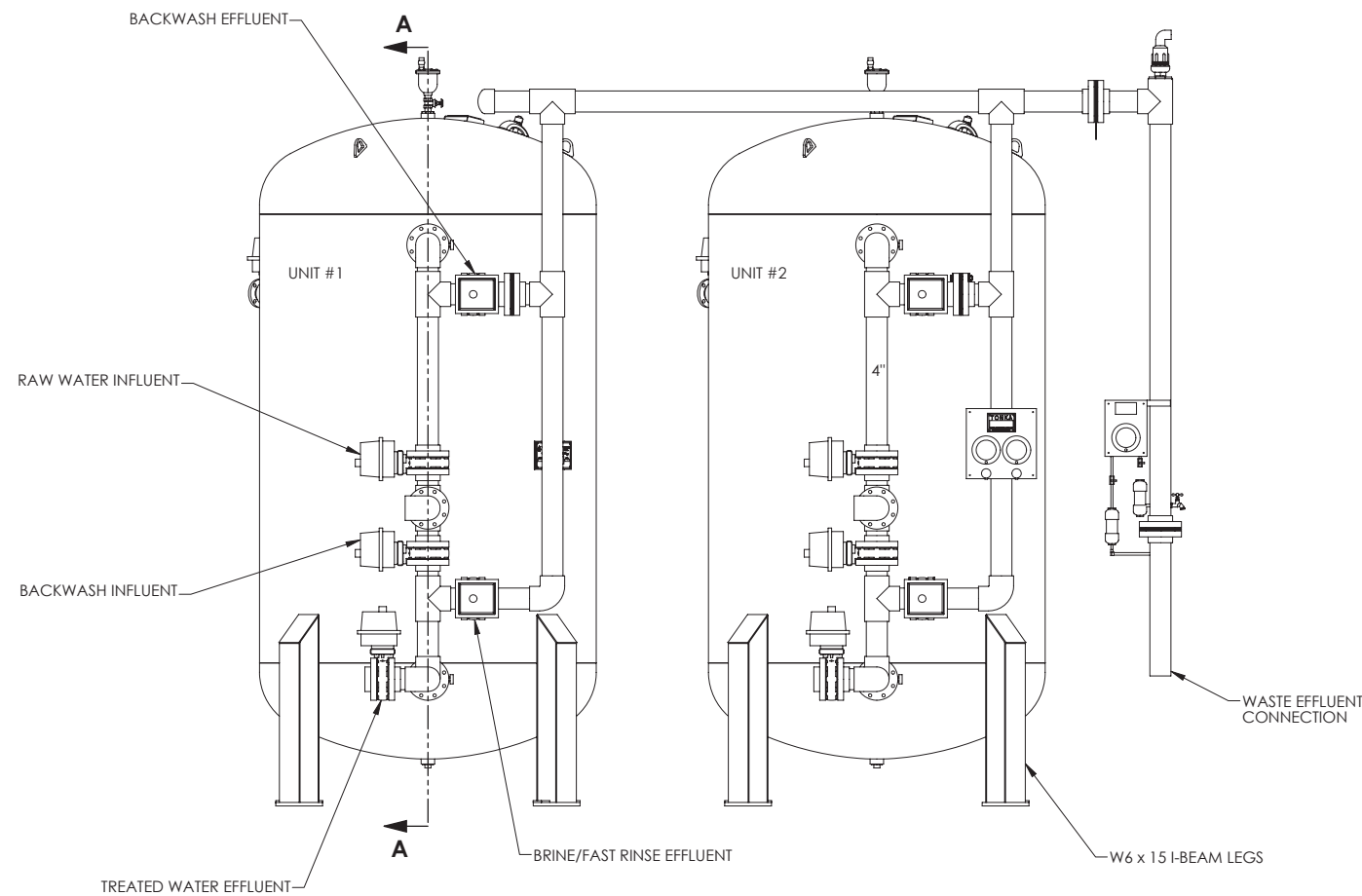
SHEET NUMBER:
1 OF 2

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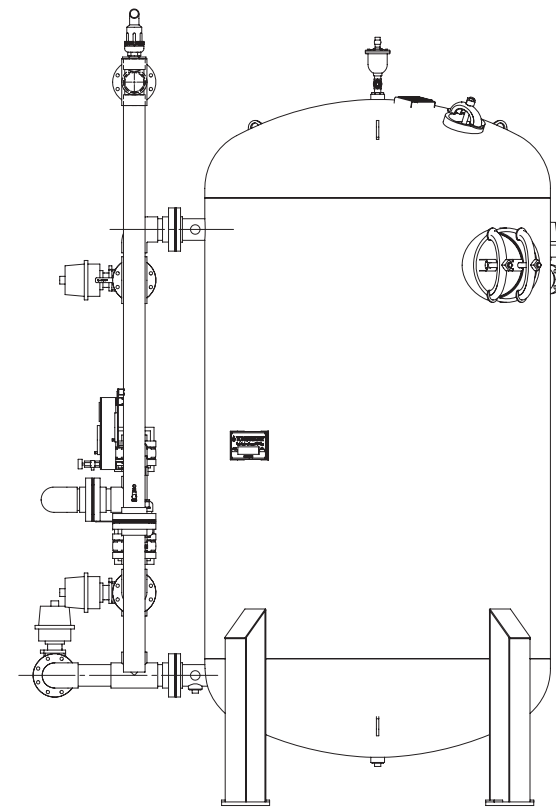
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PLAN VIEW



FRONT ELEVATION



RIGHT SIDE ELEVATION

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ORGANIX™
SMALL VESSEL - TRADITIONAL PIPING
CATALOG DRAWING

SHEET NUMBER: **2 OF 2** REV: **0**

DRAWING NUMBER: **00065184**



ORGANIX™

Advanced Organics Removal Technology



Stepping up to the challenge of organics removal

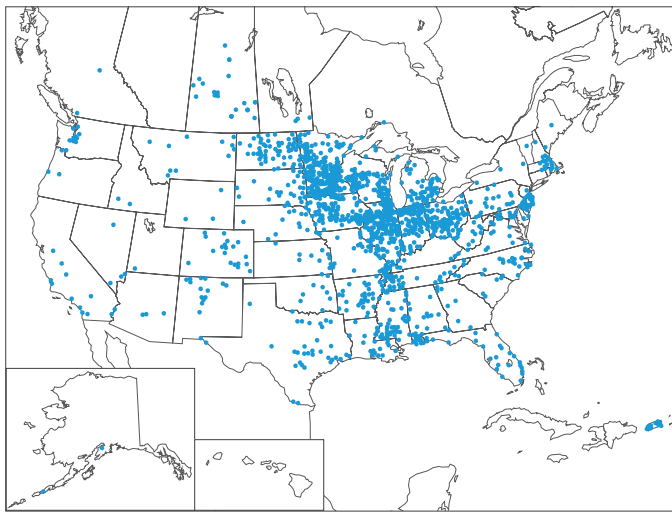
Organix™ Vs. Organics

Organix™ is the most cost-effective, customized, and user-friendly solution to the complex challenge of organics removal.

- Superior TOC, DOC, and color removal using organic selective ion exchange resin
- Guaranteed water quality
- System responsibility from an experienced manufacturer
- Easy integration into existing facilities for both ground and surface water treatment
- Trouble-free operation. No moving parts or complicated hydraulic balancing
- Proven results and a successful track record with numerous installations
- Cost-effective solutions and lowest cost of treatment

FEATURES

- Compact footprint and simplicity
- Simple, robust design
- Easy installation and maintenance
- In-vessel technology
- Minimal waste stream



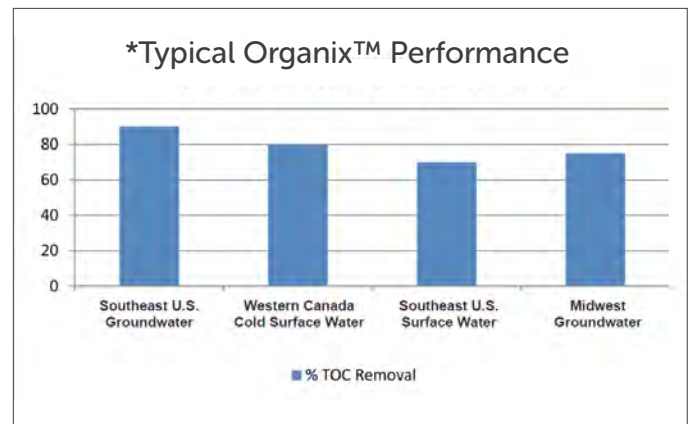
Tonka Water Brand Guarantee

Tonka Water, a U.S. Water brand provides the best custom manufactured water treatment systems in the industry. Our people will deliver excellent service and support for your project from conceptual and cost-effective design, to construction and commissioning; and throughout the system warranty and operational life of the project.

Thousands of quality water treatment installations since 1956.

Organix™ Can:

- Operate intermittently or continuously
- Provide up to 90 percent removal of TOC*
- Be incorporated as a “slip stream” treatment
- Handle a wide range of organic compounds
- Eliminate THM and HAA formation potential prior to disinfection
- Be fully automated and SCADA compatible
- Be adapted for seasonal operation as needed



Organix™ Features

- Conventional and proven process
- In-vessel technology
- Efficient footprint
- Easy to install and maintain
- Inherent system redundancy
- Simple, easy-to-use controls
- Intermittent off-line resin regeneration
- Robust system tolerates influent hydraulic and TOC fluctuations
- Guarantee against resin loss or attrition

Pressurized, Enclosed Process

- No intermediate pumping required, stays pressurized
- Not dependent on flocculators, gear reducers, mixers, or other mechanical devices
- Avoids exposure to atmosphere and sunlight which promote biological growth
- No downstream equipment (screens, filters) required for resin capture
- Minimal waste stream



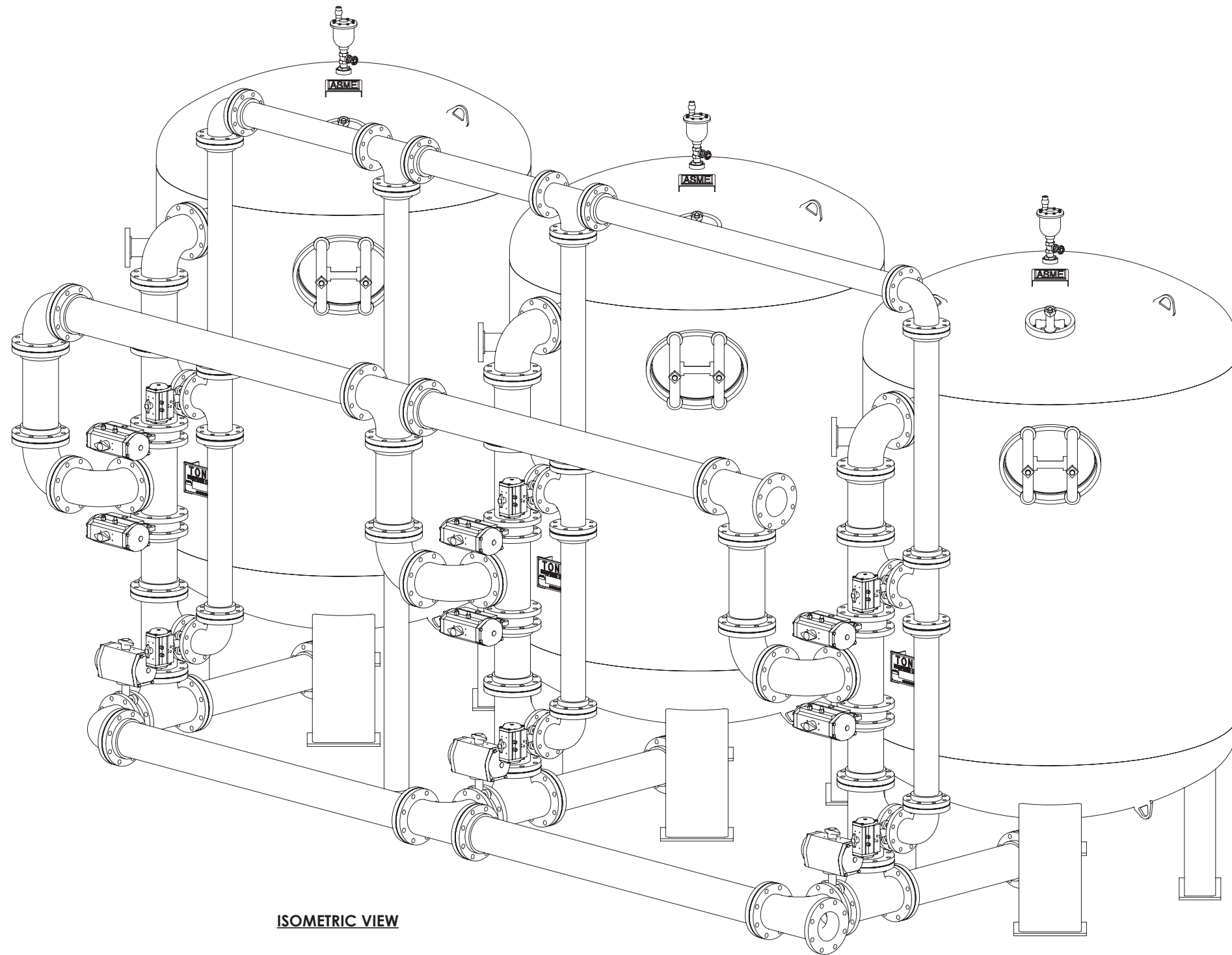
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RidION™ Ion Exchange System
3 Vessel System
Catalog Drawing



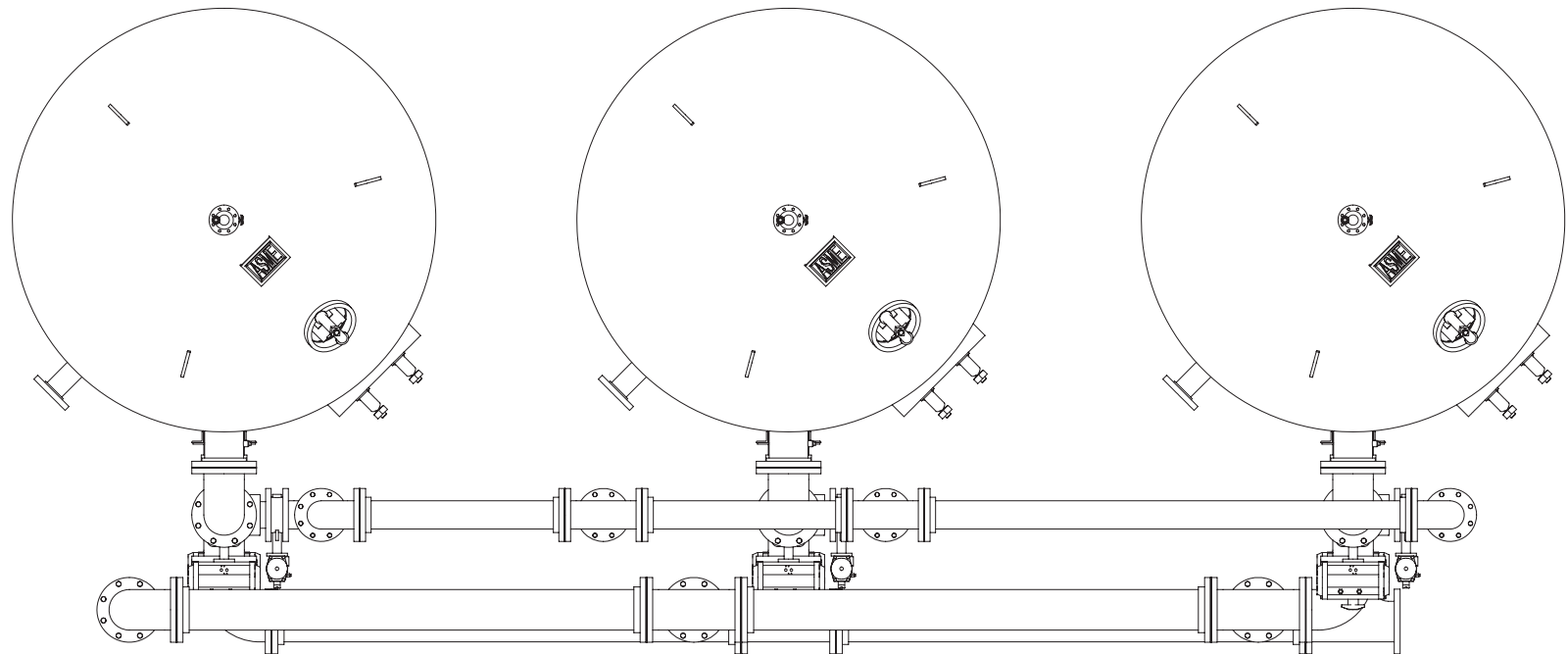
ISOMETRIC VIEW

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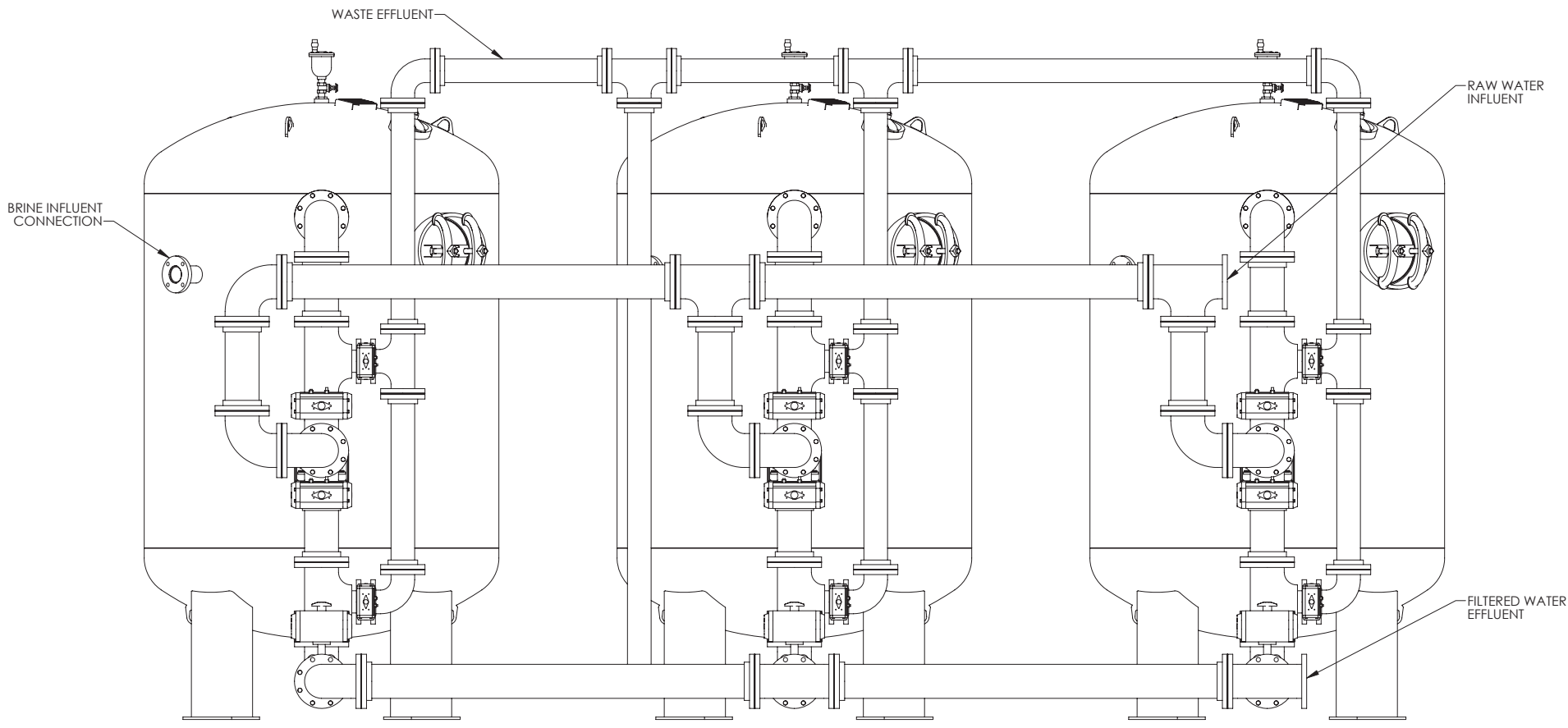
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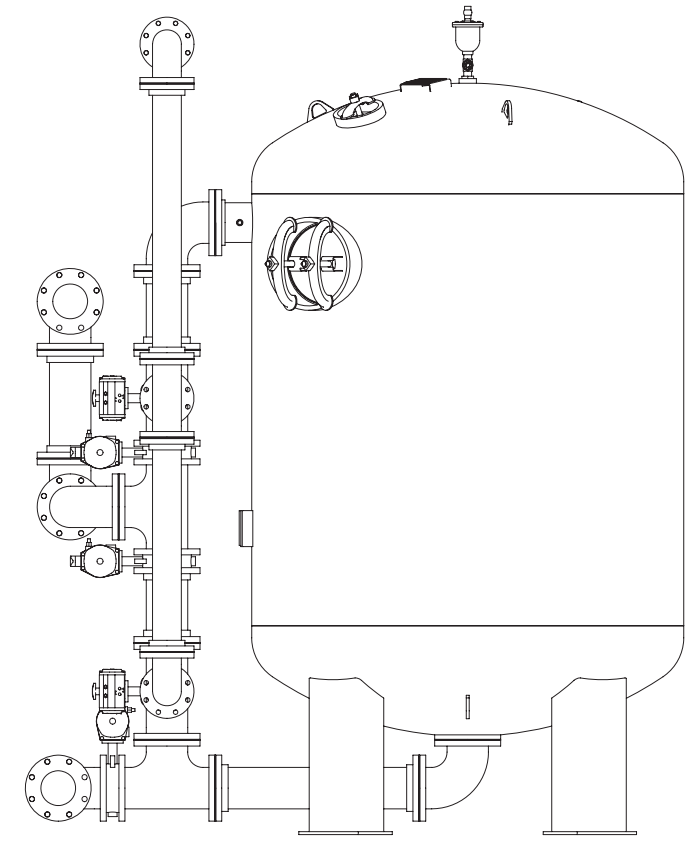
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PLAN VIEW



FRONT ELEVATION



RIGHT SIDE ELEVATION

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SHEET NUMBER: **2 OF 2**
REV: **0**
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Beach Parking Pass Summary

Beach Parking Pass Summary	
Term	Annual
Form	Registered license plate-no sticker
Property Owners (as verified by Atlantic Beach tax parcel)	Two free allowed per parcel each year. Must re-apply annually. Any additional parking passes are \$100
Business	One free allowed per eligible business. Must re-apply annually. Any additional parking passes are \$100
Long-term Tenants	Passes may be conveyed to the tenant at the property owner's discretion.
Management	Turn-key managed by Premium Parking with minimal staff involvement after it is set up. Paid parking management company to receive database of all parcels to use to verify eligibility and limit of passes.
General Public	Anybody can purchase an annual pass for \$100

Effective with the 2024 paid parking season, re-entry passes will no longer serve as free parking passes in Atlantic Beach.

In 2011, re-entry passes were permitted to serve as free parking passes. The long-term re-entry passes were ¼ the fee of the annual parking pass, and we began seeing the trend that people were buying re-entry passes to distribute to their extended family, renters, guests, and business clientele for free parking. After several years of operating this way, the decision was made to detach re-entry passes from parking as the intent behind limiting the number of people able to access the Town when in a State of Emergency had been compromised. Re-entry passes will no longer serve as parking passes in Atlantic Beach starting in 2024.

Town of Atlantic Beach-2024 Parking Program Outline

Atlantic Beach will implement a paid public parking program at several locations of beachfront parking spaces for the 2024 summer season. Last year, this program derived over \$440,000 with 43,000 transactions. **This year, we have contracted with Premium Parking to provide turn-key management of the paid parking program.**

Purpose: To generate funds for beach services which include: a 7-day-a-week, paid summer lifeguard program which was affected by the withdrawal of annual lifeguard-funding contributions by the county, the operation and maintenance of three public beach access bathhouses, daily garbage/refuse pickup and disposal along a five-mile beachfront and various free summer recreation programs activities like the AB Beach Music Festival and July Fourth Fireworks; and the traffic safety enforcement for a summer population that approaches 50,000. These funds ensure that such tourist-related beach services are not fully subsidized by the local property taxpayers.

Schedule and Rates:

- Paid parking program runs from April 1, 2024 through September 30, 2024 (*Note: lifeguards are scheduled on the beach strand May 15-Aug 18; roamers on duty weekends through Labor Day if available*)
- Daily from 10AM – 6 PM
- Pay-to-Park: \$4.00/hour paid parking using parking stations, text-to-pay, app, or by phone number; each accepting credit/debit cards only
- **Star Spaces: Increased rate of \$5.00/hour for pavilion and CAMA lot parking spaces**
- **Daily maximum: Flat rate of \$25.00 for full day of parking with ability to leave and return within same day**
- **Thirty Minute Free Parking ONLY:** These spaces are located along the outside perimeter of West Drive and Atlantic Drive, vehicles may park free but must move every 30 minutes at a minimum.
- Any unpaid cars in paid lots or parking spaces at beginning of parking day hours will be ticketed
- No refunds for rain-outs
- Free parking in any space with valid Handicap or Disabled Veteran tag/plates
- Seasonal paid parking pass registrations may be purchased for \$100 each, allowing free parking at any non-handicapped numbered space. Passes are in the form of license plate registration, no physical sticker will be issued. Seasonal parking pass registration does not override designated “No Parking”, “30 Minute Parking”, “Loading Zone Only”, or “Restricted Parking” areas
- **Golf Cart parking spaces are not free parking spaces**
 - **Golf carts will also need to be registered or pay-to-park in any designated golf cart or regular spot, the annual AB golf cart inspection does not cover the cost of parking**
 - **LSVs (low-speed vehicles) will be permitted to park in designated golf cart or regular spot if the LSV has an annual parking plate registration or pays to park**

Paid Parking Areas including handicap spaces (463 parking spaces): New Bern Avenue Beach Access (50), West Boardwalk CAMA Lot (63), Circle Point Grass Lot (24), Circle Pavilion Paved Lot (31), Circle Gravel/Dirt Lot (45), Circle Perimeter: West Drive, Atlantic Blvd, and East Drive (161), Circle Adjacent: E Terminal, E Bogue (29), Henderson Blvd/Beach Access (60).

Atlantic Beach Property Owners: Free Parking with annual parking pass registration, two allowed per parcel per year.

Atlantic Beach Business Owners: Free Parking with annual parking pass registration, one allowed per business per year.



2023 Council Planning Retreat Summary of Actions



EOC: need ceiling sound panels; privacy curtains that also control sound	Working on Quotes- Will discuss at March Workshop	Workshop
Research companies for new website	We have an example and a plan for a new website. Hope to discuss at the workshop in March.	Workshop
Branded Tumblers	AB Circle Logo RTIC Tumbler (White)	✓
Branded Tumblers	AB Circle Logo RTIC Tumbler (Navy)	✓
Branded Koozies	AB Circle Logo Koozies	✓
Branded PFG shirts	AB Circle Logo PFG shirts	✓
Branded Boat flags	2'x3' flags	✓
Branded Trucker Hats	AB Circle Logo Hats (Richardson 112)	✓
Christmas Ornament	Annual Christmas Ornament	✓
Look into a company that will handle orders and shipping instead of town staff	Due to the specific brands and our demand for high quality products we have not found a company that can provide both.	✓
2024-2025--> Next Steps, new items, discontinued items, etc.		Workshop
Rewards for taking initiative	Would like to develop a way to recognize employees that go above and beyond.	Budget
After school/daycare incentives	Met and discussed options with other municipalities, but we were unable to find a solution at this time.	✓
Employee survey - TM to poll staff about benefits they would like to have and would use; longevity bonus perception	Completed. Data briefly discussed at August Council Meeting.	✓
Appreciation and Social Employee Events - specifically after BMF	Summer Kick-off Lunch 6/9/2023	✓
Improve upon traditional Christmas events for employees	Scheduled for 8am December 15th	✓
Increase dental amount	Increased from \$1,000 to \$1,200	✓
Increase HSA match	Increased match from \$20 to \$35 per pay period (twice monthly)	✓
Assess Flex Day to work from home	Exempt Staff may WFH on occasion, but to provide face-to-face service that is the extent that has been allowed at this time.	✓
Review old survey, discuss any additional topics, and create plan for survey	Discuss after November Election with Council at a monthly workshop	Workshop
Fix crooked sign posts and other issues when they are noticed.	PW began working on this after Idalia. We plan to complete a sign assessment this winter.	Continuous
Public Spaces should always look clean and maintained		Continuous
Develop a plan to replace or remove benches around town.		Workshop
Rewrite current Ordinance to provide clear and stricter enforcement for appearance violations for Commercial and Residential [CODE WRIGHT CONTRACT]		Workshop
Public Works Initiated repair budget	Was not worked into the 2023-2024 budget. Funds are allocated as needed or absorbed when possible.	✓
Form a committee to review major site plans & provide comments from a community perspective of what the Town wants, not just check boxes from UDO [CODE WRIGHT CONTRACT]		RETREAT
UDO Amendments	Adopted with an implementation date of July 2024. Are we still good with this date or do we need further discussion?	RETREAT
Assess option to extend water lines/ hydrants from El Zap to the bridge. Loop System if possible.	On hold till RedBird work begins.	On Hold
Take a Kid Fishing Pier - short pier [Need to "survey" water depth in the area as initial step-can do in house]		RETREAT
Look into receiving grant funding from Big Rock and other organizations.		RETREAT
Kayak launch		RETREAT
Walkway under the bridge		RETREAT
NEW - Center Drive/ Shore property	Public Services is waiting for the CAMA permit, but we hope to begin the grading work in the next week or two.	RETREAT
	Additional Improvements?	RETREAT

Update/Repair existing equipment or remove	Removed	✓
Research NC State Natural Learning Institute program	Proposal Received	✓
Research NC State Natural Learning Institute program	Proposal Approved	✓
	Work Started	✓
	Survey Updated	✓
	Council Requested Discussion of Preliminary plans at February Retreat	RETREAT
Big Rock Grant Application Submitted	Grant Award Date is November 28th, 2023 (Not awarded)	✓
	Final Plans Presented (ETA March 1st, 2024)	
When does the Moratorium Expire? Joint effort with TMs on the Island and Marine Fisheries to ensure no shellfish beds in Bogue Sound or at least locations limited.	Moratorium extended in 2021 until July 1, 2026 (link)	RETREAT
Review Rates, Fines and Enforcement in other Island Towns, for possible rate increase in 2024 season	Data was compiled and discussed at the budget workshop.	✓
Install Canal Name signage on No Wake Sign pilings		RETREAT
Morgan to post on Facebook a short video showing what a "wake" is - make it a fun post to remind people of no wake in the canals		RETREAT
Send letters to remind residents/businesses that these are the Town's ROW. We have to protect them so property owners do not try to claim.		RETREAT



2023 Council Planning Retreat Summary of Actions



TOWN OBJECTIVE	TITLE	DEPARTMENT	TASK	STATUS	
Great Government	Public Safety and Admin Complex	PW/TM	Confirm all warranty items were addressed: Fire Dept Bay Door, Screening at Generator area, Cracks in Town Hall Stairs, etc. Admin Building Improvements: Generator Fence, Dumpster, Doors, Radio Repeaters,	Staff is currently working to get a list of repairs completed within the warranty.	✓ RE TREAT
Great Government	Technology Improvements & Staff Training	Katrina/Sabrina/TM	EOL- need ceiling sound panels, privacy curtains that also control sound Continue with Zoom and Training on Teams	On hold till after December to assess funding available in current budget.	RE TREAT OFF SEASON
Great Government	Website	Morgan/TM	Research companies for new website	TM and Morgan will work on this in the off season to discuss options with Council	RE TREAT
Great Government	Communication	Morgan/TM	Devise a Communication Plan on how and who will communicate issues for consistency (weather, crime, environmental issues, etc.) Look into PIO and NIMS Training (Morgan)	TM and Morgan will work on this in the off season. Morgan will take/ attend additional training after returning from maternity leave.	- HOLD
Great Government	Branded Merchandise	P&B/Town Staff	Branded Tumblers Branded Knopies Branded PPG shirts Branded Boat flags Branded Trucker Hats Christmas Ornaments Look into a company that will handle orders and shipping instead of town staff 2024-2025 -> Nest Steps, new items, discontinued items, etc.	All Circle Logo RTIC Tumbler (White) All Circle Logo RTIC Tumbler (Navy) All Circle Logo Knopies All Circle Logo PPG shirts 2x4' flags All Circle Logo Hats (Richardson 112) Annual Christmas Ornament Due to the specific brands and our demand for high quality products we have not found a company that can provide both.	✓ ✓ ✓ ✓ ✓ ✓ ✓ RE TREAT
Great Government	Police Presence	Police	Focus on Community Policing: added presence at town events, visit local businesses, improve visibility, etc. Great job at BMP, received positive FB comments on Patrol National Night Out Event July 4th Parade: Club Colony and Ocean Ridge Concerts at the Cottage (Drake White and Darius Rucker) 2023 National Night Out Two officers attend ribbon cutting for "A Ray of Hope" Coffee with a Cop Operation Medicine Drop Trunk or Treat	Continuous ✓ ✓ ✓ ✓ ✓ October 6th, 2023 October 28th, 2023 October 27th, 2023	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Great Government	Employee Incentives	TM/Sabrina/Sarah	Research for raising initiative After school/dance incentives Employee survey - TM to poll staff about benefits they would like to have and would use, longevity bonus perception Appreciation and Social Employee Events - specifically after BMP Implement upon traditional Christmas events for employees. Increase dental amount Increase HSA match Assess Flex Day to work from home	Would like to develop a way to recognize employees that go above and beyond. Met and discussed options with other municipalities, but we were unable to find a solution at this time. Completed. Data briefly discussed at August Council Meeting. Summer Kick-off Luncheon 8/29/2023 Scheduled for Jan. December 15th. Increased from \$1,000 to \$1,300 Increased match from \$20 to \$35 per pay period (twice monthly) Element staff may WFH on occasion, but to provide face-to-face service that is the extent that has been allowed at this time.	RE TREAT ✓ ✓ ✓ ✓ ✓ ✓ RE TREAT
Great Government-Placemaking	Public Survey	Morgan/TM	Review old survey, discuss any additional topics, and create plan for survey	Discuss after November Election with Council at a monthly workshop	RE TREAT
Smart Growth-Placemaking	Townwide Appearance	PW/Planning Public Works Public Works/ Admin Planning Public Works	Fix crooked sign posts and other issues when they are noticed. Public Spaces should always look clean and maintained Develop a plan to replace or remove benches around town Rewrite current Ordinance to provide clear and stricter enforcement for appearance violations for Commercial and Residential (CODE WRIGHT CONTRACT) Public Works Initiated repair budget	PW began working on this after Idalia. We plan to complete a sign assessment this winter. ✓ RE TREAT RE TREAT Was not worked into the 2023-2024 budget. Funds are allocated as needed or absorbed when possible.	Continuous RE TREAT RE TREAT ✓
Smart Growth-Placemaking	Community Design Committee	Planning	Form a committee to review major site plans & provide comments from a community perspective of what the Town wants, not just check boxes from LUDO. (CODE WRIGHT CONTRACT)		RE TREAT
Smart Growth-Placemaking, Environmental Stewardship/Resiliency	Causeway and COR District Improvements	Planning Planning/ PW	LUDO Amendments Assess option to extend water lines/ hydrants from El Zap to the bridge. Loop System if possible.	Adopted with an implementation date of July 2024 On hold till Redbird work begins.	RE TREAT RE TREAT
Smart Growth/Redevelopment	New Bern Avenue Retention Wall	Public Works	Install retention wall	Approved at January meeting, Contract Signed Construction Completed.	✓ -
Smart Growth- Recreation & Entertainment	Golf Cart Parking at Beach Access	Public Works	Designate and mark 3-4 spaces at the beach access where there is enough room for parking, installed on Club Colony and Salmagundi	Two parking spots have been installed at the Dunes Avenue Two parking spots have been installed at the Raleigh Beach Access.	✓ ✓
Smart Growth/Recreation & Entertainment	DOT, Bike and PED Crosswalks	PW/Planning	Confirm the Fort Macon Road and Charlotte intersection crosswalk is still in progress, the location needed to be adjusted Bike/PED area ABC Store headed West- per the NC DOT Bike Plan, future improvements on the north side of Hwy 58 should be wider multi-use paths as opposed to concrete sidewalks.	Met with DOT. They are re-assessing all options for this intersection. Limited space will be a challenge. Allen is continuing to work on this. Staff submitted an application 3/14/22 - to NCDOT for Carbon Reduction Program (CRP) funding to install sidewalks along the northern extent of W. Fort Macon Rd. from Palm Suites to the Dollar General. Grant was awarded and requires a 20% match. Waiting on DOT to add project to STIP plan. Need to determine match funding source and plan to complete project.	✓ -
Recreation & Entertainment-Smart Growth	Soundside Pier/Launch at Bridge Abutment	Planning/PW	Take a Kid Fishing Pier - short pier-Need to "survey" water depth in the area as initial step-can do in house! Look into receiving grant funding from Big Rock and other organizations. Kiosk launch Walkway under the bridge		RE TREAT RE TREAT RE TREAT RE TREAT
Recreation & Entertainment-Placemaking; Environmental Stewardship/Resiliency	Moonlight Bay Boat Ramp	Admin/ PW	Parking area, fencing, boat ramp improvements	Approved at 11/27 meeting: PW will complete work ASAP Received CAMA permit Work Completed.	✓ ✓ -
Recreation & Entertainment-Placemaking	Social District		Email business owners in the Circle and the Crown Neck Shopping Center to gauge their interest in participating in a Social District. Follow-up Email or Phone call to business/ property owners. Discuss results with Council at the October or November Workshop.	Survey email sent on 8/20/2023 Start on 9/18 Council Choose not to move forward.	✓ ✓ -
Recreation & Entertainment-Placemaking	Playground Improvements	P&B/PW	Update/Repair existing equipment or remove Research NC State Natural Learning Institute program Research NC State Natural Learning Institute program	Removed Proposal Received Proposal Approved Work Started Survey Updated Council Requested Discussion of Preliminary plans at February Retreat Grant Award Date a November 28th, 2023 (10m awarded) Final Plans Presented (ETA March 1st, 2024)	✓ ✓ ✓ ✓ ✓ RE TREAT -
Placemaking- Recreation & Entertainment; Environmental Stewardship	Aquaculture Leases	TM/Planning	When does the Moratorium Expire? Joint effort with TMs on the Island and Marine Fisheries to ensure no shellfish beds in Bigue Sound or at least locations limited.	Moratorium extended in 2021 until July 3, 2026 (link).	RE TREAT
Placemaking- Recreation & Entertainment	Paid Parking	TM	Review Rates, Fines and Enforcement in other Island Towns, for possible rate increase in 2024 season	Data was compiled and discussed at the budget workshop.	✓
Placemaking	Waterway Stenage	Public Works/Police Morgan	Install Canal Name signage on No Wake Sign pilings Morgan to post on Facebook a short video showing what a "wake" is - make it a fun post to remind people of no wake in the canals		RE TREAT RE TREAT
Placemaking-Smart Growth	Code Enforcement	Planning/TM	Hire a part-time Code Enforcement Officer, suggested a retired or current Police Officer Causeway: Vans and boats long term storage.	Not budgeted at this time. Enforcing as violations are noted.	HOLD HOLD
Placemaking-Smart Growth	ROW Encroachments	Planning	Send letters to remind residents/businesses that these are the Town's ROW. We have to protect them so property owners do not try to claim.		RE TREAT
			Approved Budget for 2023-2024 Park Gate Installed Park Hours Update Close on Board Walk Parking Installed Turtle Lighting at 3 beach accesses. Apply for Big Rock Grant Addressed DOT sign timing at Morehead intersection Re-entry and Parking Update	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
2022 Carry Over Items					
Great Government	Upgrade of Town Computer and Software Systems	Sabrina	GIS- Convert to a cloud based platform and create additional user profiles (Planning Dept) Move GIS layers from in-house server to cloud (Planning Dept)	GIS to cloud with additional users (Planning iPad - Field worker; Leghe/Water and Elisabeth/Planner -Creator; Lindsay/PW - Editor; and Viewer licenses: Sabrina, Katrina, Fire, Police). Separate accounts for water and planning were merged in late December, licenses for various departments for a Town-wide GIS system in the cloud have been paid for. Departmental logins still need to be created/issued to staff. Plotted items/layers (water, FD hydrants, planning layers) should be migrated to the cloud and removed from in-house servers and PCs and new layers (street signs, stormwater, crime mapping, etc.) being added. As of July 1 2023, the layers are to be in place and to be edited for maintenance/changes, not still being newly created.	Moved from 2022 List Moved from 2022 List
Great Government	Installation of Public Safety Cameras	Jeff/Morgan/Sabrina	Safety Cameras	December- contract signed with NC Sound for cameras on Hwy 58, bridge/Causeway, 3 beach accesses, park, and west-end entrance to SB. Date approved at 12 locations. The Circle access pole on the beach strand was relocated west of the original location. New location has been approved. (PO 23-01099) for Public Area cameras (10 cameras) and wireless network for Public/Traffic monitoring (10-2001-401; \$194,987.11) & Town Park camera system upgrades (10-5001-401; \$47,877.23) - VENDOR: NC Sound. Coordinating with NC Sound to have camera installed ASAP. In-progress	✓ ✓ ✓ Moved from 2022 List
Smart Growth-Placemaking	Property Maintenance Ordinance Updates		This initiative is held over from the 2021 retreat and endorsed by the Council at the 2022 retreat. The Town's property maintenance ordinances are out-of-date and do not address many of the issues that arise in town. A complete rewrite of this section of the Town's ordinance is needed. This will be a staff and consultant driven project in which the staff will select a consultant and work with them to develop a draft ordinance. Other related ordinance updates to consider include sidewalk fees and requirements for underground utilities on new construction or significant remodels (this may already be on the books).	UDO 18.7.3. requires street lighting in subdivisions to be placed underground. A sidewalk-in-fee fee and requirements will be updated at the January Meeting	HOLD

				No additional direction has been received.	HOLD
Smart Growth; Placemaking	Formalization of Community Appearance/Design Commission	Planning	In 2021 the Town updated it's UDO to conform with new State requirements. As part of this process, our UDO can now be updated to provide for a formal role for our Community Design Commission. To date, this group has been serving in ad-hoc advisory role. The current ad-hoc commission consists of residents, second homeowners, business owners and representatives from the Town Council. The changes to the UDO that are needed are relatively minor and may be handled in house. If staff research determines that an outside consultant would be beneficial, a proposal for such will be presented to the Council.	Discussed again at March 2023 Retreat.	HOLD
Placemaking; Smart Growth	Right of Way Encroachments	TBD	The Council discussed how to manage existing encroachments in the Town's right of ways. These are typically minor encroachments such as posts to prevent on-street parking and landscaping. The Council did not want to force removal of any such encroachments that are not causing significant issues. Instead, the Town will be contacting the property owners who are encroaching to remind/notify them that they are encroaching on the Town's property, and give them permission to leave the encroachments in place until the Town requests that they be removed.	Further direction from Council is requested on what types of encroachments would be permissible. An inventory of encroachments along Town Streets will need to be completed in order to send notifications, likely Spring 2023. Re-send notification letters	HOLD
Placemaking	New Branding Initiative – Waterway Signs	PW	As a fun extension of our branded street sign program, the Town will install "Street" signs at the intersections of our canals and bays. The signs will be modeled after existing street signs but may need to be a bit larger for visibility and sturdy mounting. They should be mounted on attractive but durable posts.	Public Works Department is coordinating with the Mayor to ensure proper sign design and install signage identifying our canals and bays. (Cautionary note: The Town will need private property owner permission to install signage on existing bulkheads as the bulkheads are privately owned. Another option is to install signs on a piling placed in the waterways requiring a CAMA perm.)	HOLD