AGENDA
TOWN OF NAGS HEAD PLANNING BOARD
NAGS HEAD MUNICIPAL COMPLEX – BOARD ROOM
TUESDAY, FEBRUARY 17, 2026; 9:00 AM
REGULAR SESSION

A. CALL TO ORDER

B. APPROVAL OF AGENDA

C. PUBLIC COMMENT/AUDIENCE RESPONSE

D. APPROVAL OF MINUTES

1. January 20th, 2026

E. ACTION ITEMS

1. Special Use Permit/Site Plan Review submitted by Albemarle & Associates, Ltd on behalf of Coastal Bluewater Capital, LLC and TW's Bait and Tackle for construction of a Group Development, including two buildings to accommodate retail and art gallery uses and their associated accessory storage spaces. The property is zoned C-2, General Commercial and is located at 2230 S. Croatan Highway, Nags Head.

2. Consideration of a Site Plan Review for construction of an 8,305 square foot Dare County EMS Station and associated improvements. The property is zoned SPD-C Village Commercial-1 and is located at 105 W. Seachase Drive.

F. REPORT ON BOARD OF COMMISSIONERS ACTIONS

1. February 4th, 2026

G. TOWN UPDATES - AS REQUESTED

H. DISCUSSION ITEMS

1. Planning & Development Directors Report

2. Update on Estuarine Shoreline Management Plan.

3. Update on Commercial Outdoor Recreation Overlay District

I. PLANNING BOARD MEMBERS' AGENDA

J. PLANNING BOARD CHAIRMAN'S AGENDA

K. ADJOURNMENT

Town of Nags Head
Planning Board
January 20, 2026

The Planning Board of the Town of Nags Head met on Tuesday, January 20, 2026, in the Board Room at the Nags Head Municipal Complex.

Planning Director Kelly Wyatt called the meeting to order at 9:07 a.m. as a quorum was present.

Members Present

Meade Gwinn, David Elder, Brad Carey, Valerie Netsch, Beverly Head

Members Absent

David Thompson, Basil Belsches

Others Present

Kelly Wyatt, Joe Costello, Lily Nieberding

Election of Chair and Vice Chair for Calendar Year 2026

Planning Director Kelly Wyatt opened the meeting and requested nominations for the position of Planning Board Chair for the calendar year 2026. Beverly Head moved to nominate Meade Gwinn to serve as Chairperson. David Elder seconded the motion. There being no other nominations, a vote was taken, and the motion passed unanimously.

Ms. Wyatt then turned the meeting over to newly elected Chair, Meade Gwinn.

Chair Gwinn then requested nominations for the position of Vice-Chair. Brad Carey moved to nominate David Elder for Vice Chair. Valerie Netsch seconded, and the motion passed unanimously.

Approval of Agenda

David Elder moved to approve the agenda as presented. Beverly Head seconded, and the motion passed by unanimous vote.

Public Comment/Audience Response

Hillary McCubbins, a Nags Head Pond resident, spoke to the Board about concerns over proposed accessory dwelling units tied to businesses through deed restrictions. She highlighted that linking housing to employment could impede workers from finding better jobs due to housing and employment being linked, exacerbating the already challenging housing market. Ms. McCubbins proposed that the language be expanded to permit any Dare County resident or employee to occupy these units, rather than limiting them to employees of particular businesses. She urged the Planning Board to consider these impacts on low-wage workers.

Approval of Minutes

Chair Gwinn asked for a motion to approve the minutes of the December 16th, 2025, meeting. David Elder moved to approve the minutes as presented; Beverly Head seconded, and the motion passed unanimously.

Action Items

Special Use Permit/Site Plan Review submitted by Albemarle & Associates, Ltd on behalf of Coastal Bluewater Capital, LLC and TW's Bait and Tackle for construction of two buildings to accommodate retail, art gallery, and associated accessory storage spaces. The property is zoned C-2, General Commercial and is located 2230 S. Croatan Highway, Nags Head.

Planning Director Kelly Wyatt presented the special use permit/site plan review for construction of two buildings to accommodate retail, art gallery, and associated accessory storage spaces at 2230 S. Croatan Highway. She noted the Board had previously seen this project during sketch plan review, and the site plan had changed minimally since then.

The proposal included:

- Converting a recently approved 4,774 square foot storage building connecting the principal retail building and existing storage building to retail, resulting in 14,024 square feet of retail space and 4,250 square feet of storage
- Constructing a new 6,750 square foot detached building divided into two units: Unit 1 with 2,500 square feet of retail and 1,000 square feet of accessory storage, and Unit 2 with 3,250 square feet of storage accessory to TW's Bait & Tackle
- Constructing a new 3,000 square foot detached building consisting of 2,000 square feet of art gallery and 1,000 square feet of accessory storage.

Ms. Wyatt reviewed the site plan in detail, explaining how the buildings would be connected and flow. She noted the property is zoned C-2 and the surrounding properties are predominantly C-2 with some C-3 to the west. The project is not located in a flood zone but meets the 9-foot regulatory flood protection elevation requirement, with new buildings having a first-floor elevation of 11 feet. Staff determined the project complies with most requirements including land use plan, lot coverage, maximum building height, parking, landscaping, buffers, lighting, and traffic circulation. However, staff found the architectural design does not fully comply with commercial design standards in the UDO, particularly regarding human scale, roof variations, and roof articulations.

Ms. Wyatt explained that the proposed buildings, while technically one-story, appear as large two-story structures with a metal building design and gambrel roofs that make them appear top-heavy rather than achieving the human scale required by the UDO. The architect attempted to address these requirements through projections and decorative elements, but staff determined these efforts did not meet the intent of the design standards.

John DeLucia of Albemarle & Associates and Mark Kasten of Cahoon and Kasten Architects addressed the Board on behalf of the applicant. Mr. DeLucia discussed site plan details, noting the project required creative solutions to accommodate the client's goals while meeting town requirements. Mr. DeLucia also noted that they are proposing a second sign by the second driveway.

Mr. Kasten acknowledged the architectural challenges and expressed willingness to work with staff on revisions if needed.

Kelly confirmed for Mr. Kasten that because it requires a public hearing it would go to Consent Agenda in February and Public Hearing in March. If the PB does not recommend approval the applicant could come back in February and still have Public Hearing in March.

Board members expressed several concerns:

Mr. Elder noted the project has continually expanded through multiple iterations and represents a "strip-like development" that seems contrary to UDO intentions. He also noted that the project seemed like it was still in flux and that the Board needed to pull back and ask what is a better design.

Mr. Carey questioned whether the storage allocation might be a "loophole" to avoid parking requirements and how future uses might be monitored noting that it seemed like a lot of storage for retail. Mr. Carey inquired how many other retailers in Nags Head have this much storage.

Ms. Wyatt confirmed that less parking is required for an art gallery than retail. She also noted that Staff shares concern about storage and parking and that the Board may want to revisit percentages for accessory uses in the future, but that the proposed parking was currently compliant with Town code.

Ms. Netsch and Ms. Head commented that the site appeared overloaded with development and the buildings seemed top-heavy.

The Board generally agreed with staff's architectural concerns and were in consensus that the architectural design should be revised to better meet UDO requirements, particularly to achieve more human scale and less top-heaviness.

Mr. DeLucia agreed that there was a lot of development on this property but that it was less than what the Applicants wanted to do initially. They wanted apartments but they did not septic capacity. He reminded the Board that land is expensive and needs to be maximized to be affordable. Mr. DeLucia also reiterated that the proposal meets the ordinance of the town.

David Elder moved to recommend denial of the special use permit at this phase due to architectural design concerns, with the understanding that the applicant would work with staff on revisions to bring back to the Planning Board in February while keeping the project on track for public hearing. Beverly Head seconded and the motion passed unanimously.

Consideration of a text amendment submitted by Albemarle & Associates, Ltd. On behalf of Dare County to amend the lighting levels allowed for publicly owned and publicly accessible pickleball courts.

Ms. Wyatt presented a text amendment request to amend lighting levels allowed for publicly owned and publicly accessible pickleball courts. The amendment would increase the allowable illumination from 15 foot candles to 30 foot candles, with the possibility of temporary increases up to 50 foot candles for tournament play. The request relates to the 10 pickleball courts previously approved for development by the County at the old Pamlico Jack site.

Ms. Wyatt explained that while the town has historically maintained conservative lighting standards in line with Dark Sky Initiative, research showed that Dark Sky compliance depends more on fixture design, orientation, and shielding than specific foot candle measurements.

The proposed amendment includes numerous supplemental regulations:

- Compliance with all lighting regulations including shielding, pole height requirements, and light trespass limitations
- Full cut-off fixtures with additional shielding as necessary
- No light trespass at the estuarine shoreline or public trust waters
- Maximum pole height of 25 feet
- Dimmable or multi-level lighting systems
- On-demand activation using push buttons or motion sensors with automatic shutoff
- Noise mitigation requirements if substantiated noise complaints are received

Ms. Wyatt explained that tournaments would fall under the Town's Crowd Gathering permit requirements and would supersede standard requirements and noted that Staff would ensure that illumination would return to regular levels after a permitted tournament was over.

John DeLucia, Albemarle & Associates and Dustin Peele, Assistant County Manager for Dare County, provided additional information, explaining that competitive pickleball standards recommend 30-50 foot candles for recreational play and 50-70 foot candles for tournament play. They noted the county already uses push-button timers and automatic shutoffs at existing facilities, and the site is 300 feet from the sound with modern LED fixtures that would minimize light spillage.

The Board discussed several aspects of the amendment, including:

- Differences between pickleball court lighting and existing field lighting at Satterfield Landing Park.
- Potential extension of the curfew from 9 PM to 10 PM for pickleball courts while maintaining the 9 PM curfew for Satterfield Landing fields.
- Whether commercial pickleball facilities should receive the same lighting allowances.

Mr. DeLucia confirmed for Mr. Carey that there is a fence proposed and wind barriers so while it is not a noise barrier per se, but it may help mitigate any noise.

Manny Golasa, owner of the Outer Banks Sports Club, briefly addressed the Board and confirmed a 10 PM cut-off is a fair time noting that most people play later in the evening due to cooler temperatures. He also confirmed that his proposed pickleball courts would be closer to US158 than the residential neighborhood behind his property.

David Elder moved to approve the text amendment as presented with the modifications to increase the curfew to 10 PM for publicly owned, publicly accessible pickleball courts, include commercial pickleball facilities in the enhanced lighting allowances, and clarify that approved crowd gathering permits would supersede standard curfew times. Beverly Head seconded and the motion passed unanimously.

Report on Board of Commissioners Actions – January 7th, 2026

Ms. Wyatt noted there was not much to report from the January 7th Board of Commissioners meeting but mentioned that Deputy Planning Director Joe Costello had presented an update on the estuarine shoreline management plan. The Board agreed to defer a more detailed presentation on this topic to the February Planning Board meeting.

Town Updates

None

Discussion Items

Planning & Development Director's Report – January 7th, 2026

Ms. Wyatt reported that the Dare County EMS station site plan approval had lapsed but the project is now back on track for construction. She noted it would likely come before the Planning Board in February. Additional updates included:

- The Septic Health Advisory Committee is scheduled to meet on January 27th
- Informational signage was installed on all water quality loggers to prevent vandalism
- 103 sand relocation authorizations had been issued and 44 dune management cost share applications processed.
- The planning department maintained an average 3-day turnaround time for residential and commercial permits.
- The flashlight candy cane hunt at Doughty Park was a great success and well-attended.
- The first winter market of the year was held on January 10th with the February market scheduled for Valentine's Day.
- The Art and Culture Committee will soon be providing an update on 2025 activities and 2026 plans

Discussion and acceptance of 2025 Submittal Calendar

Ms. Wyatt presented the Draft 2026 Submittal Calendar. The Board approved it without any changes.

Planning Board Members' Agenda

Mr. Elder stated that he would love to see more art installations around Town. Ms. Netsch agreed and pointed out the sidewalk art and the art masts projects as things she would like to see more of. She also praised the recent Soundside boardwalk project which she believes will be a great asset to the Town.

Planning Board Chairman's Agenda

None

Adjournment

A motion to adjourn was made by David Elder. The time was 11:25 AM.

Respectfully submitted,
Lily Campos Nieberding

AGENDA ITEM SUMMARY

Town of Nags Head Planning Board
REGULAR SESSION: February 17, 2026

AGENDA ITEM E.1.

Special Use Permit/Site Plan Review submitted by Albemarle & Associates, Ltd on behalf of Coastal Bluewater Capital, LLC and TW's Bait and Tackle for construction of a Group Development, including two buildings to accommodate retail and art gallery uses and their associated accessory storage spaces. The property is zoned C-2, General Commercial and is located at 2230 S. Croatan Highway, Nags Head.

Prepared by	Reviewed by
Kelly Wyatt, Planning Director	Kelly Wyatt

Staff Comments/Recommendation

At its January 20, 2026, meeting, the Planning Board engaged in substantial discussion regarding the proposed project, with particular focus on architectural compliance. While a majority of Board members were satisfied that the proposal met applicable dimensional standards and use requirements (including lot coverage, building height, and buffering), concerns were expressed regarding the architectural design and its alignment with the Town's Commercial Design Standards.

The Planning Board requested that the applicant work collaboratively with staff to develop revised architectural renderings that more closely reflect both the standards and the intent of the ordinance, and to return with those revisions at the Board's February meeting. At the same time, the Planning Board supported allowing the project to continue moving forward procedurally, including scheduling the required public hearing. As a result, this item was advanced to the Board of Commissioners' February Consent Agenda for the purpose of setting that hearing.

Following the January meeting, the project architect coordinated closely with planning staff and submitted revised architectural drawings. Those updated renderings are included in your packet for review. Staff finds the revisions reflect a notable and deliberate effort to address the concerns previously raised by both staff and Planning Board members and more clearly align with the Town's Commercial Design Standards, particularly as they relate to building massing, façade articulation, and overall architectural character.

Staff is satisfied that the revised drawings meet the intent of the Commercial Design Standards. With compliant architectural plans now submitted, the application is considered complete, and staff recommends approval of the Site Plan Review as presented.

Specific Action Requested

This item is provided for Planning Board review and recommendation.

Summary

General Information

Applicant: Albemarle & Associates, Ltd. on behalf of Coastal Bluewater Capital, LLC and TW's Bait & Tackle.

Application Type: Special Use Permit/Site Plan Review

Purpose/Request: This Special Use Permit/Site Plan Review includes the following elements:

- Conversion of the recently approved 4,774 square foot storage area (connecting the principal retail building and the existing storage building) into retail. This would result in the building containing 14,024 square feet of retail space and 4,250 square feet of storage space.

- Construction of a new 6,750 square foot detached building, divided into two units. Unit 1 is proposed to consist of 2,500 square feet of retail space and 1,000 square feet of accessory storage space. Unit 2 is proposed to consist of 3,250 square feet of storage, accessory to TW's Bait & Tackle.

- The above two buildings are proposed to be connected via a 12' x 20' covered sidewalk.

- Construction of a new 3,000 square foot detached building consisting of 2,000 square feet of art gallery use and 1,000 square feet of storage, accessory to the art gallery.

Property Location: 2230 S. Croatan Highway, Nags Head. As required by the November 5, 2025, Board of Commissioners approval for the infill storage development, the lot located immediately west of the existing TW's Bait & Tackle has been properly recombined with the subject property.

Existing Land Use: Retail with Accessory Storage (TW's Bait & Tackle).

Zoning Classification of Property: C-2, General Commercial.

Zoning Classification of Surrounding Properties: Property to the north, directly across Satterfield Landing Road, is zoned C-2, General Commercial and developed commercially (Outer Banks Professional Center/OBX Bowling). Property to the south is zoned C-2, General Commercial and developed commercially (Plaza del Sol Shopping Center). Property to the west is zoned C-3, Commercial Services and is developed commercially (Village Real Estate Rental Management Facility). Property to the east, directly across US Highway 158 is zoned C-2, General Commercial and is developed commercially (Beach Mart Office).

Flood Hazard Zone of Property: Property is located in an X Flood Zone. Per the Town of Nags Head local ordinance, the property is subject to a Regulatory Flood Protection Elevation (RFPE)/Local Elevation Standard (LES) of 9 feet. The proposed first floor of habitable space must be elevated above the 9-foot RFPE. All the proposed new structures are projected to have a first floor elevation of 11 feet, and are therefore compliant. Under Construction and Final Elevation Certificates will be required to ensure compliance.

Land Use Plan Map/Policies: The 2022 CAMA Land Use Plan/Comprehensive Plan Future Land Use Map classifies this property as General Commercial. This proposal is consistent with this land use classification and stated land use policies.

Specific Information:

Applicable Zoning Regulations:

Use Regulations: Section 6.6, Table of Uses and Activities lists Commercial Mixed Use Group Development as a Special use in the C-2, General Commercial Zoning District. Furthermore, Section 7.32 of the UDO, General Provisions, lists the uses that are acceptable within Commercial Mixed Use applications. Retail, accessory storage, and art gallery are noted as permissible uses within Commercial Mixed Use developments.

For informational purposes, Appendix A, Section A.4 (Definitions) defines a Group Development as a group of buildings on a single site that are occupied and used for professional offices, retail, personal services, indoor recreation facilities, and/or restaurant uses. Appendix A.4 also defines General Retail as establishments

providing goods directly to the consumer for immediate purchase and removal.

In addition, Appendix A.4 defines an accessory structure or use as one that is incidental and customarily found with the principal use; subordinate to and serving the principal use; subordinate in area, extent, or purpose; and contributing to the needs or convenience of the principal use.

As such, storage areas within the proposed development must function in an accessory capacity to the designated principal use. The applicant has indicated that the proposed storage components will remain incidental and subordinate in extent and purpose, and will function solely to support the principal retail operation.

Lot Coverage: Total allowable lot coverage for this site is 55% of the total lot area. Proposed lot coverage is 54.3% and is therefore compliant.

Height: The maximum allowable building height within the Town is 35 feet. However, pursuant to Section 8.2.1, Dimensional requirements, total height may be increased to 42 feet with the use of an 8:12 roof pitch or greater. The applicant has proposed both Building A and Building B/C with a maximum overall height of 35 feet. Accordingly, the proposed buildings are compliant with the Town's height requirements. A Height Certificate will be required during construction to verify compliance.

Architecture Design Standards: Following the Planning Board's January 20, 2026, discussion, the project architect worked collaboratively with staff and submitted revised elevations (dated February 10, 2026 and attached). The updated design eliminates the previously proposed gambrel roof form, introduces steeper roof pitches, incorporates stepped roof planes, enhances porch articulation, and adds architectural detailing consistent with Section 10.85.2 of the UDO, including dormers, gable brackets, varied siding treatments, residential-style double-hung windows, faux shutters, and improved façade rhythm.

These revisions represent a meaningful response to the Board's concerns regarding scale, massing, and architectural character. Staff is satisfied that the revised design meets the intent of the Town's Commercial Design Standards and Division II, Building Design Standards of the UDO.

Parking: Pursuant to Article 10, Table 10-2, Required Parking by Use, parking requirements for a Group Development are calculated separately for each principal use, based on the standards applicable to each use. Accessory storage does not have an associated parking requirement, as it is considered incidental to and supportive of the principal use, and serves the comfort and convenience of patrons of the principal use. In this case, the principal uses within the proposed group development are retail and art gallery.

The proposed site plan indicates that the combined existing and proposed area devoted to retail use totals 16,524 square feet. The required parking standard for general retail is one (1) parking space per 250 square feet of gross floor area, plus one (1) parking space per employee, with a minimum of two (2) employee spaces per retail establishment. Based on this standard, 66 parking spaces are required to serve the retail component of the development.

Required parking for art gallery use is one (1) parking space per 300 square feet of gross floor area open to the public. With 2,000 square feet of art gallery space proposed, seven (7) parking spaces are required. The applicant has indicated that the group development will employ seven (7) employees, resulting in a total minimum parking requirement of 80 spaces.

In January 2023, the property owner received approval through the Special Use Permit process for a reduction of three (3) required parking spaces in exchange for providing three compliant bicycle racks in accordance with Section 10.15.2.5 of the UDO. With this approved reduction applied, the total required parking is 77 spaces. The proposed site plan depicts 79 parking spaces, and therefore, the project is compliant with the Town's parking requirements.

Buffering/Landscaping: Several sections of the Unified Development Ordinance (UDO) speak to Buffering and Landscaping as it applies throughout this proposed site.

- Section 10.92.6.2 of the Unified Development Ordinance (UDO), Parking and Drive Aisle Setbacks, requires that when off-street parking is located between a building and the street right-of-way, a parking buffer with a minimum width of ten (10) feet be provided between the parking area and the street right-of-way. The submitted site plan depicts a compliant ten (10)-foot-wide buffer along W. Satterfield Landing Road, as shown on Sheet C203.

- Section 10.93.3.2 of the Unified Development Ordinance (UDO), Commercial Transitional Protective Yards, requires enhanced landscaping to be provided and maintained when non-residential land uses abut residential uses or residential zoning districts. Further, Section 10.93.3.2.2 specifies that where a high-impact use abuts a residential zoning district, a buffer strip with a minimum width of twenty-five (25) feet shall be provided along the entire length of the shared property boundary. The required buffer must consist of three (3) rows of acceptable plant material.

A Group Development is classified as a high-impact use for the purposes of this section. The submitted site plan depicts a compliant twenty-five (25)-foot-wide buffer, inclusive of three rows of plantings, provided along the entire southern property boundary, which abuts property zoned R-2, Medium Density Residential. Therefore, the proposal is compliant with the Commercial Transitional Protective Yard requirements, as shown on Sheet C203.

- Section 10.93.3.7. of the UDO, Interior Parking and Landscaping, requires parking lot landscaping be provided at a minimum rate equal to ten percent of the total area of the parking spaces. The minimum area necessary for compliance is 660 square feet of vegetation. The applicant has proposed 680 square feet of vegetation and is therefore compliant, shown on Sheet C203.

- Section 10.93.3.8 of the Unified Development Ordinance (UDO), Vegetation Preservation/Planting Requirements, requires that new development projects either preserve a minimum of ten (10) percent of the lot's total area with existing natural vegetation and/or dune elevations, or provide new vegetation in lieu of preservation. Where existing vegetation cannot be preserved, the ordinance requires the planting of a minimum of fifteen (15) percent of the lot's total area.

  The subject site has been previously cleared; therefore, preservation of existing natural vegetation is not feasible. Based on the site's total area, a minimum of 7,939 square feet of new vegetation is required. The applicant has proposed approximately 9,000 square feet of new plantings. Therefore, the proposal exceeds the minimum planting requirement and is compliant with Section 10.93.3.8 of the UDO.

Lighting: A lighting plan, including photometric data and fixture specifications, demonstrating compliance with Article 10, Part IV, Outdoor Lighting, of the Unified Development Ordinance (UDO), shall be submitted to and approved by the Town prior to the installation of any new site lighting.

Signage: The site plan depicts a proposed freestanding sign located in a compliant position adjacent to Satterfield Landing Road. Prior to any installation, the applicant shall submit detailed sign specifications, including height and area calculations, demonstrating compliance with Section 10.24, Signs Permitted in Commercial Districts, of the Unified Development Ordinance (UDO).

Water and Sewage Disposal: An Improvement Permit has been issued by Dare County Environmental Health for the

wastewater system necessary to support the proposed scope of work (see attached).

Traffic Circulation: Traffic circulation has been reviewed and approved by the Town Engineer as proposed.

Stormwater Management: Stormwater management has been reviewed and approved by the Town Engineer as proposed. Appropriate erosion and sedimentation control measures must be installed prior to any land-disturbing activity to prevent sediment from entering the infiltration basin.

Fire: This project will be required to comply with all applicable NC Fire Prevention Code requirements as part of the development permit application review and issuance.

Public Works: The Public Services Director has reviewed and approved the proposed site plan as presented.

ANALYSIS & STAFF RECOMMENDATION

The proposal is consistent with the applicable use and development standards of the Unified Development Ordinance (UDO).

At the Planning Board's January 20, 2026, meeting, concerns were raised regarding architectural compliance with the Town's adopted Commercial Design Standards. In response, the applicant submitted revised elevations dated February 10, 2026, reflecting coordination with planning staff and incorporating substantive architectural modifications. These revisions include the elimination of the previously proposed gambrel roof form, the introduction of steeper roof pitches and stepped roof planes, enhanced porch articulation, and additional façade detailing consistent with Section 10.85.2 of the UDO.

The Town's adopted Land Use Plan emphasizes the importance of high-quality architectural design and compatibility, particularly along highly visible commercial corridors. Staff finds that the revised architectural design addresses the Planning Board's concerns related to scale, massing, and overall character, and now meets the intent of Division II, Building Design Standards and the Commercial Design Standards of the UDO.

While not specifically required of the Planning Board, pursuant to Section 3.8.4.6 of the Unified Development Ordinance, the Board of Commissioners shall issue a Special Use Permit if it has evaluated an application through a quasi-judicial process and determined that:

1. The use will not materially endanger public health and safety if located where proposed and developed according to the plan as submitted.

2. The use, as proposed, will not overburden the firefighting capabilities and the municipal water supply capacity of the Town as such facilities and capabilities will exist on the completion date of the conditional use for which application is made.

3. The conditional use will be in harmony with the existing development and uses within the area in which it is to be located.

4. Adequate utilities, access roads, drainage, parking, or necessary facilities have been or are being provided.

5. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

Attachments

1. TW's Group Development SUP Documents for PB

TOTAL PROPOSED SQUARE FOOTAGE 14,524 x .50 = $ 7,262 +

SPECIAL USE ☒ ($500.00)

(Optional) VESTED RIGHT ☐ (no fee)

= TOTAL FEE DUE 7,762

TOWN OF NAGS HEAD DATE RECEIVED _____

SITE PLAN REVIEW APPLICATION & CHECKLIST FOR SPECIAL USES

1. **LOCATION AND ZONING INFORMATION**
   - A. PROJECT TITLE TW's Bait & Tackle
   - B. STREET ADDRESS 2230 South Croatan Highway, Nags Head, NC, 27959
   - C. SUBDIVISION Charles L Sineath Subdivision
     LOT(S) 1a-1r & 2a-1r (recombined) BLOCK _____ SECTION _____
   - D. PRESENT ZONING C2
   - E. PRESENT USE Retail
   - F. EXISTING NONCONFORMITIES existing building approved under previous architectural standards
   - G. ABUTTING PROPERTY ZONING C2, C3 & R2
   - H. ABUTTING PROPERTY USE retail, office, industrial & vacant residential land

2. **CERTIFICATION AND STANDING**
   - A. As applicant of standing of the above-named project, I certify that the information on this checklist and the site plan is complete and accurate.

     _____
     OWNER ☐ AGENT ☒ CONTRACT ☐
     PURCHASER ☐
   - B. APPLICANT/DEVELOPER: NAME Coastal Bluewater Capital
     ADDRESS PO Box 969
     Nags Head, NC, 27959
     TELEPHONE (903) 330-1215
   - C. CONTACTPERSON: NAME Albemarle & Associates Ltd, John DeLucia
     ADDRESS PO Box 3989
     Kill Devil Hills, NC, 27948
     TELEPHONE 252-441-2113

3. **ADJACENT OWNERSHIP INFORMATION (TO BE SHOWN ON SITE PLAN)**
   NAME/ADDRESS (N) Golasa Holdings LLC, 2229 S. Croatan Highway, Nags Head, NC, 27959
   NAME/ADDRESS (S) Quail Run Business Center LLC, 406 W. Lake Dr., Kill Devil Hills, NC, 27948
   NAME/ADDRESS (E) I G Holdings, 2229 S. Croatan Highway, Nags Head, NC, 27959
   NAME/ADDRESS (W) Foster Sharp, LLC, PO Box 944, Nags Head, NC, 27959
   (If additional space is needed, please attach separate sheets.)

See attached for additional property owners

4. SITE PLAN AND SITE PLAN ATTACHMENT DATA

A. Site plan preparer Albemarle & Associates, Ltd - John DeLucia, PE Phone# 252-441-2113

NC Registered ☐ Engineer ☐ Architect ☐ Surveyor. License# 16759

B. The design for the attached Stormwater Management Plan includes:

☐ 1.5", 2-hour rainfall: retained on-site.

☒ 4.3", 2-hour rainfall: no important access or health-related impacts.

☐ 5.0", 2-hour rainfall: no unapproved impacts.

Drainage calculations have been prepared ☒ YES ☐ NO ATTACHED ☒ YES ☐ NO

Note: Stormwater Management Plan MUST be approved by the Town Engineer prior to Planning Board review for all listed permitted uses in the zoning ordinance.

C. Sewage disposal approval is being submitted in the form of:

☐ Attached tentative approval letter dated _____

☐ Attached final permit dated _____

☐ State ☐ County

D. Project involves condominium ownership.

☒ NO ☐ YES, Three copies of condominium documents attached.

E. Amount of land-disturbing activity proposed _____ square feet.

A Soil Erosion and Sedimentation Control Plan has been prepared.

☐ NO ☒ YES; (1) Copy attached,
(2) Copy submitted to Dare County Soil Conservation Service, Manteo NC 27954.

F. Coastal Area Management Act (CAMA) permit. ☐ YES ☒ NO

5. INFORMATION TO BE SHOWN ON SITE PLAN

Twelve (12) copies for Planning Board review

A. **Property and ownership**	YES	COMMENTS
1. Present recorded owner and map book/cabinet reference of the site property.	Y	
2. Current PIN Number.	Y	
3. Site Address.	Y	
4. Owners' names, lot numbers or map book and page reference of all adjacent property owners.	Y	
5. Boundary of the entire parcel by course and distance.	Y	
6. Widths of the existing rights-of-way that abut the site.	Y	
7. Nature or purpose, location and size of existing easements.		
8. At all lot comers, points of tangents and any angle point along a given course of the site, iron pins minimum 3/8-inch diameter or 4x4-inch concrete monuments.	Y	
9. Plan to at least 1"=50' scale, showing north arrow and whether true or magnetic.	Y	
10. Signature and seal of preparer.	Y	
B. Existing features		
1. Streets, curbs, and sidewalks with type and width of pavement.	Y	
2. Topographic features of site and existing grades for any streets, storm drainage system including existing grades at four comers of all structures.	Y	

	YES	COMMENT
3. Flood zone(s) as determined by latest FEMA Flood Insurance Rate Map, with notation, "flood zone subject to change by FEMA."	Y	
4. All underground utilities and facilities including gasoline tanks and existing septic facilities (including tanks and fields).	Y	
5. If the lot is within an ocean hazard Area of Environmental Concern, the location of the first line of stable natural vegetation, the CAMA setback line, and contour lines at 2-foot intervals depicting any dunes located within an oceanfront AEC that are to be disturbed by construction.	N/A	
6. The location of any marsh areas or estuarine waters or US Army Corps of Engineers 404 wetlands within or abutting the lot.	N/A	
7. If the lot is within the small surface water supply watershed AEC (within 1,200 feet from the Fresh Water Pond), the distance between the pond and proposed septic or sewage treatment system.	N/A	
8. Percentage of site to be included in calculation for undisturbed vegetation preservation compliance in Article 10, Part I of the Unified Development Ordinance.	Y	0%
C. **Site improvements** in accordance with regulations of state of North Carolina, Dare County, and Town of Nags Head	Y	
1. Proposed building type (e.g., concrete or frame), number of floors and dimensions.	Y	
2. Proposed building elevations of all sides of building labeled in accordance with proposed architectural design criteria of Article 10, Part VI of the UDO.	Y	
3. Total height and number of stories of proposed structure(s). If increased height is being proposed in conjunction with increased setbacks, show increase allowed in tabular form on plan. Note definition of height in Appendix A of the Unified Development Ordinance.	Y	
4. Existing and proposed ground elevations at the corners of proposed structure(s).	Y	
5. Sanitary sewer facilities with connection to sewer system or septic tank.	Y	
6. Approximate locations of proposed underground utilities and any necessary easements.	N/A	
7. Screened dumpster pad(s) accessible to left-side loaders and sized in accordance with the Town Code of Ordinances.	Y	
8. Proposed fire hydrants and extensions of water distribution lines.	Y	
9. Location and height of proposed free-standing signs. See requirements of Article 10, Part III of the Unified Development Ordinance.	N/A	
10. Location of all sidewalks, curbs, drives, and parking within the site and proposed finished elevations.	Y	
11. Handicapped parking spaces, walks, ramps, and entrances in accordance with the NC State Building Code. Handicapped parking spaces to be 13 feet wide, marked with a free-standing handicapped sign.	Y	
12. The Vegetative Buffer Yard areas have been identified and the proper buffer yard provision(s) have been identified as outlined in the Unified Development Ordinance.	Y	
13. Layout of numbered stalls/loading zones in accordance with Article 10, Part II of the Unified Development Ordinance.	Y	

Commercial ☐ Residential ☐	Parking Spaces Required	Parking Spaces Shown	Loading Spaces
2 STORIES BUILDING SQUARE FOOTAGE: PRINCIPAL 16,524 SF ACCESSORY 2,000 TOTAL 18,524	@ 1/250 SF = 66 @ 1/350 SF = 6		
# EMPLOYEES 7	@ 1/EMP = 7		
#DWELLING/LODGING UNITS N/A	(NOTE: REDUCATION OF 3 SPACES FOR BIKE RACKS)		
	79 - 3 = 76	77	1

D. **EXPLANATORY NOTES**

1. Vicinity map.
2. Total square feet of land area to undergo land-disturbing activity.
3. The total required parking spaces versus the total parking spaces provided. Parking spaces to be numbered.
4. Cross-section details of all streets, roads, ditches, and parking lot improvements.
5. The number of dwelling/commercial units. If more than one use is proposed (e.g., large hotel with shops, etc.), show breakdown of units or square footage by building.
6. If additional height above 35 feet is being proposed, the additional height and increased setbacks shall be laid out in tabular form.
7. Total site coverage calculations. (Refer to UDO to calculate lot coverage for lots abutting ocean or sound).
8. Components of the lighting plan (pole location, pole height, type of fixture, wattage, source of illumination, etc.). See Article 10, Part IV of the Unified Development Ordinance.
9. A completed architectural points worksheet for commercial structures subject to residential design criteria.

6. **PLAN AND ATTACHMENT PREPARER CERTIFICATION**

A. I certify that all information for which I am responsible is complete and accurate.

DATE _____ SIGNATURE OF ENGINEER ☐ ARCHITECT ☐ SURVEYOR ☐ _____

B. The following individuals have contributed information or attachments to the plan:

Name	Phone#	Information Provided

Site Specific Development Plan Option - Vested Right for Site Plans

Please be advised that as the owner, or agent for the owner, you have the opportunity to apply for and receive a Site-Specific Development Plan that will establish a Vested Right for this project for a period of time not to exceed two (2) years from the date the Board of Commissioners approves the plan. You must secure a building permit for this project within two (2) years of the approval date, or your Site-Specific Development Plan will expire. If you elect not to apply for a Site-Specific Development Plan, you must secure a building permit within six (6) months or else your site plan will expire.

If you choose the Site-Specific Development Plan option, please keep in mind the following concerns:

1. Although your project may be classified as a permitted use, by requesting a Site-Specific Development Plan your project will be processed as a Special Use for which a public hearing will be held, and an additional fee of $200.00 will be charged to process your application.
2. Once your Site-Specific Development Plan has been approved with vested rights status no modifications can be made to the plan.

If you wish to take advantage of the Vested Right process, please check off the Vested Right box on page one. If you do not, then leave the box blank.

Additional Adjacent Property Owners (North)

Parcel #: 027934020 Owner: Arraou, Olivier -Primary Owner

2224 S Croatan Hwy A Nags Head 27959

Parcel #: 027934021 Owner: Hargraves, David W Ttee -Primary Owner

2224 S Croatan Hwy B Nags Head 27959

Parcel #: 027934022 Owner: Uber Telecom Inc -Primary Owner

2224 S Croatan Hwy C Nags Head 27959

Parcel #: 027934023 Owner: Celtic Isle Properties Llc -Primary Owner

2224 S Croatan Hwy D Nags Head 27959

Parcel #: 027934024 Owner: Cds Investments Llc -Primary Owner

2224 S Croatan Hwy E Nags Head 27959

Parcel #: 027934025 Owner: Dixon & Dixon Law Offices Pllc -Primary Owner

2224 S Croatan Hwy F Nags Head 27959

Parcel #: 027934026 Owner: Re Obx Inc -Primary Owner

2224 S Croatan Hwy G Nags Head 27959

Parcel #: 027934999 Owner: The Outer Banks Prof Ctr Condo Property -Primary Owner

2224 S Croatan Hwy MULT Nags Head 27959

Parcel #: 030085000 Owner: Bald, Frank A -Primary Owner

2224 S Croatan Hwy H Nags Head 27959

Additional Adjacent Property Owners (South)

Parcel #: 005649001 Owner: Machado, Santos Ventura

P.O. Box 2512

Kill Devil Hills, NC 27948

Parcel #: 005649000 Owner: Kelly, Michael W

P.O. Box 1089

Nags Head, NC 27959

Albemarle & ASSOCIATES, LTD.

January 14, 2026

Ms Kelly Wyatt, Planning Director
Town of Nags Head
PO Box 99
Nags Head, NC 27959

RE: TW's Bait & Tackle Site Expansion Resubmittal

Dear Ms. Wyatt:

Please find the attached site plan resubmittal with response to comments generated during the TRC review. The site plan related comments have been addressed as follows:

Site Plan Review Comments submitted by Kelly Wyatt:

- Comment: *Review parking requirements for "Art Gallery". UDO states one space per 300 sf of gross floor area open to the public. Assuming 2,000 sf is open to public, 7 parking spaces would be required.*

  Response: We have corrected that calculation which results in 77 spaces being required. The site plan had 74 spaces plus 3 bike racks and remains complaint. However, we have shifted building A 15' to the north and added 2 more parking spaces, for a total of 76 plus 3 bike racks. (See sheet C201)

- Comment: *While specifications for the light fixture appear compliant, the projected footcandle readings exceed the maximum allowed. This use would be considered Medium level of activity, maximum maintained footcandles is 7 footcandles, minimum is 0.5 footcandles – plan is showing areas well in excess.*

  Response: Per our discussion, the canopy lighting was included on the site lighting model, which increased lighting levels beneath the canopy. We have removed canopy lighting from the photometric and now only illustrate the parking lot lighting with a maximum footcandle of 5.55 fc. (See sheet C203)

Site Plan Review Comments submitted by David Ryan:

- Comment 1: *Erosion & Sediment Control Plans shall be submitted for review to include all proposed erosion and sediment control measures proposed for the site, stabilization requirements, construction sequence, and monitoring and self-inspection requirements. NCDEQ DEMLR has updated erosion and sediment control measure details which can*

Planning – Surveying – Engineering – Environmental – Construction Management
P.O. Box 3989, 115 W. Saint Clair St., Kill Devil Hills, North Carolina 27948
North Carolina License No. C-1027
Phone: 252-441-2113 www.AlbemarleAssociates.com Fax: 252-441-0965

be located at https://www.deq.nc.gov/about/divisions/energy-mineral-and-land-resources/erosionand-sediment-control/esc-downloads-and-forms. It is requested that the following detail information be added to the submitted erosion control plan:

Response: The requested details have been added to the plan sheet C102. A note with this information has also been added to sheet C101.

- Comment 2: *An NCDEQ NC Construction general permit NCG01 shall be obtained through NCDEQ in advance of construction activities taking place. This application can be filed electronically at the following location https://www.deq.nc.gov/accessdeq . The Electronic Notice of Intent (E-NOI) process requires an online form to be filled out and a fee to be paid prior to the issuance of a Certificate of Coverage and NCG01 Permit. To provide compliance with the NCG01 permit two sample sheets shall be included with the erosion and sediment control plan set. The additional information is as follows:*
  a. Ground Stabilization and Materials Handling
  b. Inspection, Record keeping and Reporting.

  Response: The requested sample sheets have been added to the plan sheet C102. A note with this information has also been added to sheet C101.

- Comment 3: *Inspection and monitoring records for activities under the stormwater general permit are to be maintained during the course of construction.*

  Response: A note with this information has been added to sheet C101.

- Comment 4: *Inspection and monitoring records for activities under the stormwater general permit are to be maintained during the course of construction.*

  Response: A note with this information has been added to sheet C101.

- Comment 5: *A vehicle pathing exhibit is being requested to depict circulation and routing of emergency and sanitation vehicles. The internal traffic circulation approval is contingent on the Public Services/Fire Department approval for sanitation and emergency vehicle access.*

  Response: Vehicle pathing exhibits have been prepared and are included with this submittal.

- Comment 6: *Section 10.17 Off-Street Loading provides requirements for vehicular loading spaces based upon use classification and gross floor area requirements. Loading berths shall have a minimum 12'x60' dimensions with 14-foot overhead clearance. The gross floor area exceeds 20,000 square feet which requires a one loading berth for every 20,000 sf, or fraction thereof, of floor area. A 12'x42' interior/exterior loading berth described for Unit 2 of the current plan. Since the loading berths do not meet the minimum dimensional requirements, please provide a brief narrative of the type and frequency of vehicles conducting loading/unloading operations and integration with the building layout an how it will not hinder the free movement of vehicles, and pedestrians over a street, sidewalk, parking lot or alley.*

  Response: A single 12' x 42' loading berth is provided at one of the overhead garage doors on building two. TW's obtains the vast majority of their product stock in the off

season between December and March, which is then stored in their storage areas for stocking throughout the rest of the year. Deliveries they typically get during the rest of the year arrive by standard Fed-Ex and UPS trucks on their typical routes, spending minimal time on site. Likewise, the additional retail space receives their product by Fed-Ex and UPS and the art gallery receives very minimal shipments. There is 24' of pavement width at the loading space, which would allow for two delivery trucks up to 25' in length of anticipated delivery vehicle size if needed.

- Comment 7: *Section 10.92.14.1 indicates parking lot entrances shall be graded and paved only with asphalt or concrete extending a minimum of 50' from the right-of-way as measured from the centerline. The proposed heavy-duty permeable concrete drive aisle is considered and equivalent to the specified concrete or asphalt drive aisle.*

  Response: No response necessary.

- Comment 8: *Engineered calculations to manage runoff from a 4.3 in. rainfall event have been provided and comply with the storage volume requirements of 11.4.2 of the Unified Development Ordinance. There are several numerical discrepancies in the calculations to include the totals for each of the drainage areas in the stormwater summary and the interstitial storage volume below the infiltration basin bottom. Please revise and resubmit.*

  Response: Stormwater management calculations have been reviewed and updated. Please see Stormwater Management Narrative updated 1/14/26.

- Comment 9: *It should be noted that a significant percent of the on-site storage volume provided utilizes underground storage of stormwater runoff. Permeable pavement systems and infiltration systems shall be required to be operated and maintained in accordance with NCDEQ requirements.*

  Response: No response necessary.

- Comment 10: *An NCDEQ high-density stormwater management permit shall be acquired for this application and submitted to the Town prior to the issuance of a building permit.*

  Response: No response necessary. An NCDEQ Stormwater Management Modification Application package is being prepared for these site modifications.

- Comment 11: *An executed Operation and Maintenance agreement shall be submitted to the Town in advance of the issuance of a certificate of occupancy.*

  Response: No response necessary. The operations and maintenance agreement is being submitted for the NCDEQ permit modifications and will be provided to the town.

- Comment 12: *Documentation describing the construction record conditions shall be submitted to the Town prior to the request for a certificate of occupancy.*

  Response: No response necessary. An as-built survey will be provided upon completion of the work and may be done in a phased approach.

This project is being submitted for review at the January 20th planning board meeting. Included with this response letter is the following information:

- Plans (3 copies)
  - C101 – Demolition and Erosion Control Plan (revised 1/14/2026)
  - C102 – Demolition and Erosion Control Plan (revised 1/14/2026)
  - C201 – Site Plan (revised 1/14/2026)
  - C202 – Site Details (revised 1/14/2026)
  - C203 – Buffer and Lighting Plan (revised 1/14/2026)
  - C301 – Grading & Drainage Plan (revised 1/14/2026)
  - A1 – TW's Building A (dated 1/14/2026)
  - A1 – TW's Building B/C (dated 1/14/2026)
- Stormwater Management Narrative (revised 1/13/2026)
- Vehicle pathing diagrams

I appreciate your assistance with this project. If I can provide any additional information, please do not hesitate to contact me.

Sincerely,

Michael J. Morway, PE
Engineer

cc: File 06135J
Chris Greening (Coastal Bluewater Capital LLC)

Improvement Permit
County of Dare
PO Box 669
Manteo NC 27954

Paid

S3-36789

Phone: (252) 475-5080

DARE COUNTY DEPARTMENT OF PUBLIC HEALTH

An Improvement Permit (IP) issued pursuant to this application is not affected by change in ownership provided the site and wastewater characteristics remain unchanged. An IP issued with a plat is valid without expiration. An IP issued with a site plan is valid for 60 months from the date of issuance.

Parcel: 005618002	LOT: 2A-1R BLK: SEC:	Permit: S3-36789	
Location:	W SATTERFIELD LANDING RD – NAGS HEAD		
Subdivision:	CHARLES L SINEATH DIVISION		
Owner Name:	COASTAL BLUEWATER CAPITAL LLC	Permit Date:	01/27/2026
Owner Address:	PO BOX 969	Permit Type:	WW COMMERCIAL NEW YES
	NAGS HEAD, NC 27959		

		Gallons per day:	450
Number of bedrooms:	0	Long term accept rate:	1.20
Occupancy:	0	Tank type:	PRECAST
Water Supply:	PUBLIC	Tank size:	1000
Amount of drain field:	192	Pump tank size:	1000
Number of lines:	4	Grease trap size:	0
Trench length (feet):	48	Septic type:	Type III-B - Single Pump
Trench width (inches):	36	Septic code:	COMMERCIAL
Trench depth (inches):	12	Distribution:	PRESSURE MANIFOLD
Gravel depth (inches):	12	Distance from building:	5
Rock Under (inches):	6	Distance from water supply:	10
Rock Above (inches):	2	Distance from property line:	10
Bed system dimensions:	12X48	Distance from open water:	50

Design Specifications:

-- Permit for two commercial buildings. Building A is 2,000sqft art gallery with 1,000sgft of storage. Building B is 2,500sqft retail store with 4,250sqft of storage. Total gallons per day 450. Install as designed by Albemarle & Associates project number 06135L. Must meet setbacks to property lines, water line, home and appurtenances. 100% repair area claimed. (12'X48' bed)

Note: This Permit is subject to all provisions of the 15A NCAC 18E rules governing the installation of septic systems. The person making the installation must notify the Health Department when the septic tank system is ready for inspection. If any septic tank system or part thereof is covered before being inspected and approved, it shall be uncovered at the direction of the Health Officer at the expense of the one responsible for making the installation.

Issued 01/27/2026

Permit Fee: $ 500.00

Environmental Health Specialist

Applicant signature here

Applicant Signature: MICHAEL MORWAY

Application Reference# 20461

County of Dare
PO Box 669
Manteo NC 27954

S8-36790

Phone: (252) 475-5080

DARE COUNTY DEPARTMENT OF PUBLIC HEALTH
Authorization for Wastewater System Construction

Parcel: 005618002 PIN: 989317113533 Permit: S8-36790

Owner Name: COASTAL BLUEWATER CAPITAL LLC Permit Date: 01/27/2026
Owner Address: PO BOX 969
NAGS HEAD, NC 27959

Location: W SATTERFIELD LANDING RD – NAGS HEAD
Subdivision: CHARLES L SINEATH DIVISION LOT: 2A-1R BLK: SEC:

1. Issued by _____ RPP
2. Any alteration in soil conditions (including location of structures and appurtenances) or modification in use, design wastewater flow or wastewater characteristics as specified in the associated improvement permit and application, may subject this authorization and associated permit(s) to revocation.
3. **Comments:**
   Permit for two commercial buildings. Building A is 2,000sqft art gallery with 1,000sgft of storage. Building B is 2,500sqft retail store with 4,250sqft of storage. Total gallons per day 450. Install as designed by Albemarle & Associates project number 06135L. Must meet setbacks to property lines, water line, home and appurtenances. 100% repair area claimed. (12'X48' bed)

This CA is valid as long as the IP remains valid (SL 2014-120).
Disclaimer: This permit does not relieve you of the responsibility to obtain any other necessary Federal, State or Local permit(s).

Owner Certification

1/27/2026
Applicant or Owner Signature Date
Applicant: MICHAEL MORWAY

Application Reference# 20461

Albemarle & ASSOCIATES, LTD.



TW'S Bait & Tackle
Stormwater Management Narrative

December 18, 2025
Revised January 13, 2026

Existing Conditions: TW's Bait & Tackle is located at 2230 in Nags Head on a 1.34 acre parcel. The parcel was developed in 2006 with a retail store with parking lots, LPP drainfield septic system and stormwater infiltration basin. The existing parking spaces on site utilize turfstone pavers. In 2018 additional acreage was purchased to construct a product storage building. In 2022, Coastal Bluewater Capital LLC purchased TW's Bait & Tackle. In 2024 they purchased lot 2A-1R of the Charles L Sineath Division (0.87 ac) located adjacent west of the facility. Including the recently acquired property which has now been recombined with TW's, the parcel now totals 2.21 acres. All of the newly acquired parcel has been cleared for development. The parcel is level with elevations between 8.5 and 9.8 feet above MSL. The property is within a flood zone X.

Soils: The Natural Resource Conservation Service Soil Survey for Dare County has mapped the soils on the site to consist primarily of Corolla Fine Sand (CoB) which provides high infiltration rates in excess of 20" / hour. Three soils boring where taken on the new parcel and found the soils to reflect the NRCS soils description. The soil borings were taken shortly after a multi-day rainfall event of approximately 1" of rainfall. There was no change in soils coloration that would indicate a seasonal high water table, but saturation was noted between elevations estimated between 5.8 and 6.3 msl. Prior soils investigations from the storage facility design found the ESHWT to be 6.3. It should be noted that there was very little standing water in the existing basin at time of the borings following recent rainfall. For design purposes, the ESHWT of 6.3 was utilized. Included with this narrative is an NRCS soils map and boring log.

Proposed Development: Coastal Bluewater Capital LLC intends to construct two additional buildings totaling 9,750 sf on the western portion of the site to be utilized for retail with storage, an art gallery with storage, and an additional storage unit for TW's. A connection between the existing retail and storage structures has also been approved by the town. All the structures are/will be served by the town water system and a new septic system will be constructed to serve the new structures.

Land Planning – Engineering – Surveying – Environmental – Construction Management
P.O. Box 3989, 115 W. Saint Clair St., Kill Devil Hills, North Carolina 27948
Phone: 252-441-2113 www.AlbemarleAssociates.com Fax: 252-441-0965

Stormwater Management: Stormwater from the parking lot and portion of the existing and proposed buildings on the east side fo the site is being infiltrated through pervious concrete and existing turfstone. The pervious concrete provides storage in the aggregate base and sand subgrade. Plans indicate the existing turfstone does not have an aggregate base, and calculations account for storage in the sandy subgrade. The existing storage building and overflow from turfstone currently drains into an infiltration basin which is being maintained. The existing asphalt drive aisles are being removed and replaced with pervious concrete. Existing overflow piping on the east parking lot conveys any runoff not infiltrated from the turfstone into the infiltration basin.

The new parking areas and drive aisles on the west side of the site will utilize all pervious concrete. Drainage from the front of the new structures will be directed onto the pervious concrete and account for less than a 1:1 ratio as allowed by NCDEQ. Curb cuts near drain basins and underground piping on the north side of the new parking area will allow any excess runoff not infiltrated from the pervious concrete to be conveyed into the existing infiltration basin. Drainage from the rear of the new structures is being collected from roof gutters and conveyed to the existing infiltration basin as well.

Storage capacity of the aggregate base beneath the pavement was calculated using the depth of the aggregate and a 40% void space. Additional capacity was calculated from the subgrade elevation (bottom of aggregate) to the ESHWT with a 20% void space. All structures and pavement (including pervious) utilized a 1.0 runoff coefficient. Sidewalks located beneath porches were excluded from "sidewalk" area but accounted for as "buildings". Runoff calculations were performed using the "Simple" Method and break site into three drainage areas labeled "East", "West" and "Infiltration Basin". Overall, the runoff resulting from a 4.3" rainfall event was calculated to be 21,356 cf. The pervious pavement storage (aggregate & subgrade) is calculated to be 22,018 cf and the infiltration basin is 12,729 cf. The combined storage value is 34,747 cf, which is approximately 1.6 times the required volume. These calculations along with a drainage area map and summary table are included with this report.

Soil Boring Log
TW's Bait and Tackle

Soil Boring			
Depth	**B-1**	**B-2**	**B-3**
0" to 6"	Brown Fine Sand	Tan Fine Sand	Tan Fine Sand
6" to 12"	Brown Fine Sand	Tan Fine Sand	Tan Fine Sand
12" to 18"	Brown Fine Sand	Tan Fine Sand	Tan Fine Sand
18" to 24"	Brown Fine Sand (moist)	Tan Fine Sand	Tan Fine Sand
24" to 30"	Brown Fine Sand (moist)	Tan Fine Sand (moist)	Tan Fine Sand (moist)
30" to 36"	Brown Fine Sand (sat)	Tan Fine Sand (moist)	Tan Fine Sand (moist)
36" to 42"	Brown Fine Sand (sat)	Tan Fine Sand (wet)	Tan Fine Sand (wet)
42" to 48"	Tan Fine Sand (sat)	Tan Fine Sand (sat)	Tan Fine Sand (sat)
48" to 54"		Tan Fine Sand (sat)	
54" to 60"		Tan Fine Sand (sat)	
Soil Type	Corolla Fine Sand	Corolla Fine Sand	Corolla Fine Sand
Date of Boring	12/4/25	12/4/25	12/4/25
Ex. Ground Elevation (ft. above MSL)	8.8	9.8	9.3
Depth to Water table (in)	30	42	42
Estimated Water table Elevation (ft)	6.3	6.3	5.8

Soil Map—Dare County, North Carolina
(TW's Bait & Tackle)



Map Scale: 1:1,090 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CoB	Corolla fine sand, 0 to 6 percent slopes, rarely flooded	2.3	100.0%
Totals for Area of Interest		**2.3**	**100.0%**

W. SATTERFIELD LANDING RD.
(60' R/W)

W. SATTERFIELD LANDING RD.
(60' R/W)

APPROXIMATE LOCATION OF NAGS HEAD & CURRITUCK COUNTY LINE

US HIGHWAY 158
(150' R/W)
± 82' WIDTH

AREA = 24193.5990

AREA = 32729.8598

AREA = 39269.3783

L1

K:\Active Projects\06135 - TW's Bait and Tackle, Nags Head\06135L - Site Plan\Cadd Files\06135L - Site Plan.dwg, 1/8/2026 11:37:39 AM, Albemarle & Associates, Ltd. C-1027

Volumetric Runoff Calculations
Simple Method

Project Name : TW's Expansion

East Side (Pervious Pavement)

Basin Information					
Drainage Area	39,270	SF	0.90 Acres		
Existing Impervious Area	17,067	SF			
Proposed Impervious Area	11,683	SF			
% Impervious Area (total)	73.2%				
Impervious Surface Area			*existing*	*existing (to remain)*	*proposed (additional)*
On-site Buildings or Lot BUA	10,409	SF	*8,491*	*8,034*	*2,375*
Streets	0	SF	*0*	*0*	*0*
On-site Parking	18,333	SF	*20,513*	*9,025*	*9,308*
On-site Sidewalks (included uner roof)	0	SF	*0*	*0*	*0*
Other on-site	8	SF	*8*	*8*	*0*
Future	0	SF	*0*	*0*	*0*
Off-site	0	SF	*0*	*0*	*0*
Total:	28,750	SF	*29,012*	*17,067*	*11,683*

Pavement (existing)
14,146 sf Impervious Pavement
6,367 sf Pervious Pavement
100% Pervious accounted for Runoff
20,513 Applied BUA

Pavement (ex. to remain)
3,221 sf Impervious Pavement (conc)
5,804 sf Pervious Pavement
100% Pervious accounted for Runoff
9,025 Applied BUA

Pavement (proposed)
198 sf Impervious Pavement
9,110 sf Pervious Pavement
100% Pervious accounted for Runoff
9,308 Applied BUA

Runoff Calculations (Simple Method)

	Town	NCDEQ
Design Runoff (in)	4.3	1.5
Total Area (sf)	*39,270*	*39,270*
Coverage	*73.2%*	*73.2%*
R(v)	*0.709*	*0.709*
Rainfall Volume	*9,975*	*3,480*

Nags Head 4.3": **9,975**
NCDEQ (1.5"): **3,480**

Notes
existing turfstone located on sand (no stone base)

STORMWATER MANAGEMENT CALCULATIONS - PERVIOUS PAVEMENT

Project: TW's — By: mjm
Drainage Area: East Portion of Site — Date: 01/09/26

Turfstone (north side along building)		
Turfstone	1,731	(sf)
Average Top of Pavement Elevation	10.7	
Thickness of Pavement	0.33	(ft)
Base Void Space	40%	
Base Depth	0.00	(feet)
Gravel Base Storage	**0**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	10.4	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	4.1	(cf)
Interstital Volume Below Base:	**1,409**	
Total Volume Managed	**1,409**	**(cf)**

Turfstone (north side along Satterfield Landing)		
Turfstone	801	(sf)
Average Top of Pavement Elevation	10.4	
Thickness of Pavement	0.33	(ft)
Base Void Space	40%	
Base Depth	0.00	(feet)
Gravel Base Storage	**0**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	10.1	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	3.8	
Interstital Volume Below Base:	**604**	
Total Volume Managed	**604**	**(cf)**

Pervious Concrete (Replace Existing Drive Aisle)		
Pervious Concrete	8,993	(sf)
Average Top of Pavement Elevation	10.3	
Thickness of Pavement	0.67	(ft)
Base Void Space	40%	
Base Depth	0.67	(feet)
Gravel Base Storage	**2,410**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	9.0	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	2.7	
Interstital Volume Below Base:	**4,784**	
Total Volume Managed	**7,194**	**(cf)**

Turfstone (East side along building)		
Turfstone	1,011	(sf)
Average Top of Pavement Elevation	10.6	
Thickness of Pavement	0.33	(ft)
Base Void Space	40%	
Base Depth	0.00	(feet)
Gravel Base Storage	**0**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	10.3	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	4.0	
Interstital Volume Below Base:	**803**	
Total Volume Managed	**803**	**(cf)**

Turfstone (East side along US-158)		
Turfstone	1,722	(sf)
Average Top of Pavement Elevation	10.1	
Thickness of Pavement	0.33	(ft)
Base Void Space	40%	
Base Depth	0.00	(feet)
Gravel Base Storage	**0**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	9.8	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	3.5	
Interstital Volume Below Base:	**1,195**	
Total Volume Managed	**1,195**	**(cf)**

Turfstone (West Side)		
Turfstone	434	(sf)
Average Top of Pavement Elevation	10.5	
Thickness of Pavement	0.33	(ft)
Base Void Space	40%	
Base Depth	0.00	(feet)
Gravel Base Storage	**0**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	10.2	
Elevation of SHWT	6.3	
Subgrade Void Space	20%	
Depth	3.9	
Interstital Volume Below Base:	**336**	
Total Volume Managed	**336**	**(cf)**

SUMMARY OF STORMWATER MANAGEMENT

Turfstone (north side along building)	1,409	(cf)
Turfstone (north side along Satterfield Landing)	604	(cf)
Pervious Concrete (Replace Existing Drive Aisle)	7,194	(cf)
Turfstone (East side along building)	803	(cf)
Turfstone (East side along US-158)	1195.1	(cf)
Turfstone (West Side)	335.9	(cf)
TOTAL STORMWATER MANAGED	**11,541**	(cf)
TOTAL STORMWATER REQUIRED	**9,975**	(cf)
PERCENT MANAGED OF REQUIRED:	**115.7%**	

Volumetric Runoff Calculations
Simple Method

Project Name : TW's Expansion

Existing Infiltration Basin

Basin Information					
Drainage Area	32,730	SF	0.75 Acres		
Existing Impervious Area	4,250	SF			
Proposed Impervious Area	6,087	SF			
% Impervious Area (total)	31.6%				
Impervious Surface Area			*existing*	*existing (to remain)*	*proposed (additional)*
On-site Buildings or Lot BUA	9,993	SF	*4,250*	*4,250*	*5,743*
Streets	0	SF	*0*	*0*	*0*
On-site Parking	0	SF	*0*	*0*	*0*
On-site Sidewalks (included uner roof)	0	SF	*0*	*0*	*0*
Other on-site	344	SF	*0*	*0*	*344*
Future	0	SF	*0*	*0*	*0*
Off-site	0	SF	*0*	*0*	*0*
Total:	10,337	SF	*4,250*	*4,250*	*6,087*

Runoff Calculations (Simple Method)

	Town	NCDEQ
Design Runoff (in)	4.3	1.5
Total Area (sf)	*32,730*	*32,730*
Coverage	*31.6%*	*31.6%*
R(v)	*0.334*	*0.334*
Rainfall Volume	*3,920*	*1,367*

Nags Head 4.3": **3,920**
NCDEQ (1.5"): **1,367**

TW's BAIT TACKLE
STORMWATER MANAGEMENT CALCULATIONS
INFILTRATION BASIN DESIGN

Project	TW's	By :	mjm
Drainage Area	Infitration Basin	Date :	12/17/25
		Rev:	01/13/26

Infiltration Basin

	elevation (msl)	area (sf)
Top of Basin	10.3	6,195
Bottom of basin:	8.3	3,521
Open Storage Volume	**9,716**	
ESHWT Elev.:	6.3	(msl)
Interstital Volume Below Basin:	**3,013**	(cf)
Void Space:	20%	
Total Volume Managed	**12,729**	**(cf)**
Town of Nags Head Requirements	**3,920**	**(cf)**
% of Required Stormwater Managed	**325%**	

Volumetric Runoff Calculations
Simple Method

Project Name : TW's Expansion

West Side (Pervious Pavement)

Basin Information					
Drainage Area	24,194	SF	0.56 Acres		
Existing Impervious Area	8	SF			
Proposed Impervious Area	21,782	SF			
% Impervious Area (total)	90.1%				
Impervious Surface Area			*existing*	*existing (to remain)*	*proposed (additional)*
On-site Buildings or Lot BUA	5,220	SF	*0*	*0*	*5,220*
Streets	0	SF	*0*	*0*	*0*
On-site Parking	15,509	SF	*0*	*0*	*15,509*
On-site Sidewalks	927	SF	*0*	*0*	*927*
Other on-site	134	SF	*8*	*8*	*126*
Future	0	SF	*0*	*0*	*0*
Off-site	0	SF	*0*	*0*	*0*
Total:	21,790	SF	*8*	*8*	*21,782*

Pavement (existing)
- 0 sf Impervious Pavement
- 0 sf Pervious Pavement
- 67% Pervious accounted for Runoff
- 0 Applied BUA

Pavement (ex. to remain)
- 0 sf Impervious Pavement (conc)
- 0 sf Pervious Pavement
- 67% Pervious accounted for Runoff
- 0 Applied BUA

Pavement (proposed)
- 1,201 sf Impervious Pavement
- 14,308 sf Pervious Pavement
- 100% Pervious accounted for Runoff
- 15,509 Applied BUA

Runoff Calculations (Simple Method)

	Town	NCDEQ
Design Runoff (in)	4.3	1.5
Total Area (sf)	*24,194*	*24,194*
Coverage	*90.1%*	*90.1%*
R(v)	*0.861*	*0.861*
Rainfall Volume	*7,461*	*2,603*

Nags Head 4.3": **7,461**
NCDEQ (1.5"): **2,603**

STORMWATER MANAGEMENT CALCULATIONS - PERVIOUS PAVEMENT

Project TW's By : mjm
Drainage Area West Portion of Site Date : 01/09/26

SUMMARY OF STORMWATER MANAGEMENT

Pervious Concrete (Drive Aisle)	5,510	(cf)
Pervious Concrete (Parking Spaces)	4,967	(cf)
TOTAL STORMWATER MANAGED	**10,477**	(cf)
TOTAL STORMWATER REQUIRED	**7,461**	(cf)
PERCENT MANAGED OF REQUIRED:	**140.4%**	

Pervious Concrete (Drive Aisle)

Pervious Concrete	7,446	(sf)
Average Top of Pavement Elevation	10.0	
Thickness of Pavement	0.67	(ft)
Base Void Space	40%	
Base Depth	0.67	(feet)
Gravel Base Storage	**1,996**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	8.7	
ESHWT Elev.:	6.3	(msl)
Subgrade Void Space	20%	
Depth	2.4	(cf)
Interstital Volume Below Base:	**3,515**	
Total Volume Managed	**5,510**	**(cf)**

Pervious Concrete (Parking Spaces)

Pervious Concrete	6,861	(sf)
Average Top of Pavement Elevation	10.0	
Thickness of Pavement	0.50	(ft)
Base Void Space	40%	
Base Depth	0.42	(feet)
Gravel Base Storage	**1,153**	(cf)
Interstitial (below of gravel base)		
Average elevation of subgrade	9.1	
ESHWT Elev.:	6.3	(msl)
Subgrade Void Space	20%	
Depth	2.8	
Interstital Volume Below Base:	**3,815**	
Total Volume Managed	**4,967**	**(cf)**

TW'S Bait Tackle
Stormwater Management Summary

Drainage Area	4.3" Runoff (cf)	Basin Storage (cf)	Pervious Pavement Storage (cf)
East side of site (Pervious Concrete & Turfstone)	9,975		11,541
West Site of Site (Pervious Concrete)	7,461		10,477
Existing Infiltration Area	3,920	12,729	
TOTAL:	**21,356**		**34,747**
			163%

I. NARRATIVE:

COASTAL BLUEWATER CAPITAL LLC HAS PURCHASED LOT 2A-1R OF THE CHARLES L. SINEATH DIVISION (0.87 AC) LOCATED BEHIND TW'S BAIT & TACKLE AT 2230 IN NAGS HEAD AND IT IS BEING RECOMBINED WITH THE TW'S PARCEL FOR A TOTAL OF 2.21 ACRES. ALL OF THE 0.87 ACRE PARCEL HAS BEEN CLEARED FOR DEVELOPMENT. THE PARCEL IS LEVEL WITH ELEVATIONS BETWEEN 8.5 AND 9.8 FEET ABOVE MSL.

DEVELOPMENT PLANS INCLUDE A COMBINATION OF RETAIL AND STORAGE. DEVELOPMENT OF THE SITE WILL INCLUDE TWO STRUCTURES, PARKING AND DRIVE AISLES COMPRISED OF PERVIOUS CONCRETE, INSTALLATION OF A SEPTIC SYSTEM, DRAINAGE SYSTEM AND WATER CONNECTIONS.

DISTURBED AREAS ARE TO BE STABILIZED WITH TEMPORARY/PERMANENT VEGETATION ACCORDING TO THE SEQUENCE OF CONSTRUCTION.

II. SOILS DESCRIPTION:

SOIL TYPES AS MAPPED IN THE SOIL SURVEY OF DARE COUNTY:

COROLLA FINE SAND (COB)

III. CONSTRUCTION SEQUENCE:

- OBTAIN TOWN OF NAGS HEAD AND NCDEQ APPROVAL
- FLAG OR STAKE WORK LIMITS
- HOLD PRE-CONSTRUCTION MEETING
- RELOCATE EXISTING FIRE HYDRANT
- INSTALL CONSTRUCTION ENTRANCE
- INSTALL SILT FENCING
- COMMENCE EARTHWORK
- COMMENCE CONSTRUCTION OF INFRASTRUCTURE, NEW BUILDING AND UTILITIES
- INSTALL LANDSCAPING
- SEED, FERTILIZE AND WATER DISTURBED AREA TO STABILIZE

IV. SEDIMENTATION AND EROSION CONTROL NOTES:

1. PRECONSTRUCTION CONFERENCE:
   PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL WALK THE SITE WITH THE OWNER'S REPRESENTATIVE AND A REPRESENTATIVE OF THE MUNICIPALITY (IF REQUIRED) IN ORDER TO IDENTIFY AND MARK SPECIFIC ELEMENTS WHICH ARE TO BE PROTECTED. TREES SHALL BE PROTECTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION AND SEDIMENTATION CONTROL HANDBOOK.
2. INSTALLATION OF EROSION CONTROL MEASURES:
   PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES, ALL EROSION AND SEDIMENTATION CONTROL MEASURES IDENTIFIED ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS AND ALL PERMIT CONDITIONS.
3. UTILITIES:
   PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL HAVE THE APPROPRIATE UNDERGROUND UTILITIES LOCATED. CONTACT NC811 AT 811 OR 800-632-4949. UTILITIES SHOWN ARE TAKEN FROM EXISTING RECORDS, FIELD OBSERVATIONS AND/OR UTILITY LOCATING SERVICE AND ARE NOT GUARANTEED TO BE ACCURATE OR COMPLETE.
4. ACCESS TO SITE:
   ALL CONSTRUCTION TRAFFIC SHALL UTILIZE THE CONSTRUCTION ENTRANCE AS DESIGNATED ON THIS PLAN.
5. LIMITS OF DISTURBANCE:
   THE CONTRACTOR SHALL ENSURE THAT AREAS OUTSIDE OF THE LIMITS OF LAND DISTURBING AS WELL AS EXISTING IMPROVEMENTS SPECIFICALLY NOTED TO REMAIN ARE NOT ADVERSELY IMPACTED BY ANY CLEARING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ITEMS DAMAGED OUTSIDE THE LIMITS OF DISTURBANCE OR OTHERWISE NOTED TO REMAIN.
6. STABILIZATION:
   EXPOSED SWALES, DITCHES, DIKES OR OTHER SLOPES STEEPER THAT 3(H):1(V) SHALL BE STABILIZED WITH A TEMPORARY OR PERMANENT GROUND COVER WITHIN 7 CALENDAR DAYS. ALL OTHER EXPOSED EARTHEN AREAS SHALL BE STABILIZED WITH A TEMPORARY OR PERMANENT GROUND COVER WITHIN 14 CALENDAR DAYS OF THE COMPLETION OF ANY PHASE OF GRADING.
7. INSPECTIONS REQUIRED:
   SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED, MAINTAINED AND REPAIRED AS NECESSARY BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN COMPLETED SELF-INSPECTION / MONITORING FORMS (COMPLETED WEEKLY WITH DAILY RAINFALL TOTALS) THROUGHOUT THE PROJECT. THE SITE SHALL ALSO BE INSPECTED AFTER ANY RAINFALL EVENT EQUAL OR GREATER THAN 0.5 INCHES OVER A 24 HOUR PERIOD.
8. CORRECTIVE MEASURES:
   ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL WORK IS COMPLETE AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED. IF EXCESSIVE WIND EROSION OR STORM WATER RUNOFF DEVELOPS DURING TIME OF CONSTRUCTION IN ANY LOCATION ON THE PROJECT SITE, ADDITIONAL SAND OR SILT FENCE SHALL BE INSTALLED AS DIRECTED BY ENGINEER, SEE SAND OR SILT FENCE DETAIL.
9. DEBRIS REMOVAL:
   ALL CLEARING DEBRIS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A LAWFUL MANNER. NO BURNING OF DEBRIS ON SITE IS PERMITTED. NO ON-SITE BURNING IS PERMITTED UNLESS OTHERWISE APPROVED BY THE LOCAL FIRE MARSHALL, MUNICIPAL AGENCY OF JURISDICTION AND THE OWNER.
10. EXCAVATION AND EMBANKMENT:
    ANY OFF-SITE MATERIAL BROUGHT ONTO TO THE SITE TO BE USED FOR GRADING FILL SHALL BE OBTAINED FROM A PERMITTED BORROW PIT. FILL SHALL CONFORM TO PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT. NO BORROW IS PERMITTED FROM THE SITE.
11. EXISTING INFORMATION:
    THE EXISTING SURVEY AND SITE TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON SURVEY INFORMATION PROVIDED BY SEABOARD SURVEYING AND PLANNING AS SURVEYED NOVEMBER 2025.

TOWN LAND DISTURBANCE APPROVAL AND NCG01 NOTES:

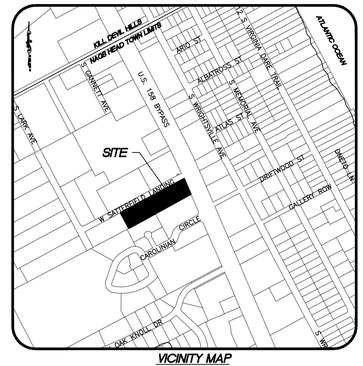
Prior to any land disturbing activities, the applicant shall submit a properly executed financial responsibility agreement to the Town of Nags Head with associative plan review fee $50 for 1st acre and $40 for each additional acre. Upon approval, the Town shall provide a letter of approval which will be needed to obtain the NCG01 Construction Stormwater Permit.

An NCDEQ NC Construction general permit NCG01 shall be obtained through NCDEQ in advance of construction activities taking place. This application can be filed electronically at the following location https: //www.deq.nc.gov/accessdeq . The Electronic Notice of Intent (E-NOI) process requires an online form to be filled out and a fee to be paid prior to the issuance of a Certificate of Coverage and NCG01 Permit.

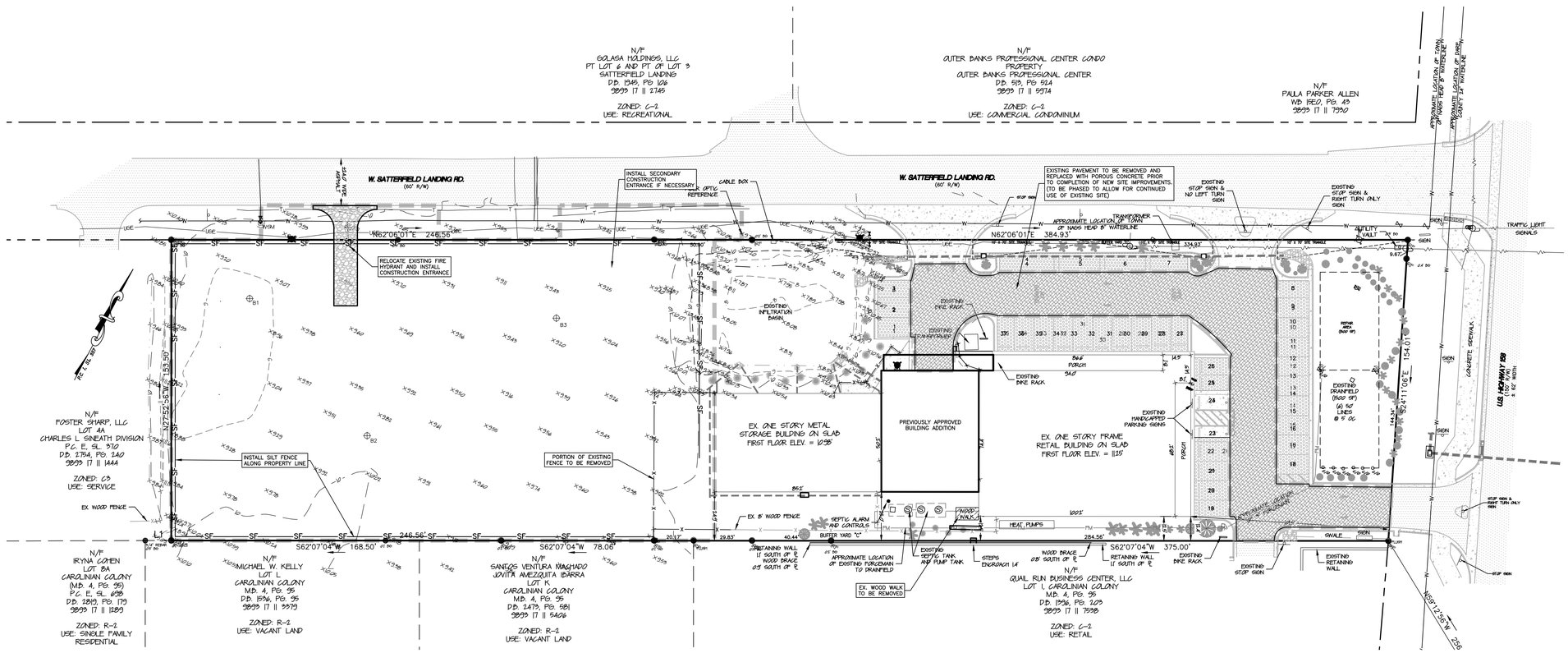
Inspection and monitoring records for activities under the stormwater general permit are to be maintained during the course of construction. These forms can be downloaded at https: //www.deq.nc.gov/about/divisions/energy-mineral-and-landresources/stormwater/stormwater-program/npdes-construction-program.

811 Know what's below. Call before you dig.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

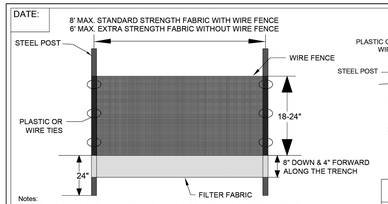


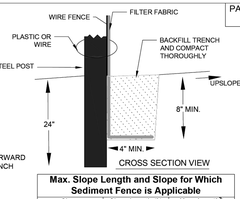
VICINITY MAP


N/F
EGLASA HOLDINGS, LLC
PT. LOT 6 AND PT. OF LOT 3
SATTERFIELD LANDING
D.B. 1345, PG. 106
3833 17 11 2745
ZONED: C-2
USE: RECREATIONAL
N/F
OUTER BANKS PROFESSIONAL CENTER CONDO PROPERTY
OUTER BANKS PROFESSIONAL CENTER
D.B. 513, PG. 524
3833 17 11 5974
ZONED: C-2
USE: COMMERCIAL CONDOMINIUM
N/F
PAULA PARKER ALLEN
W.B. REC. PG. 49
3833 17 11 7350
W. SATTERFIELD LANDING RD.
(60' R/W)
INSTALL SECONDARY CONSTRUCTION ENTRANCE IF NECESSARY
CABLE BOX
FIBER OPTIC REFERENCE
EXISTING PAVEMENT TO BE REMOVED AND REPLACED WITH POROUS CONCRETE PRIOR TO COMPLETION OF NEW SITE IMPROVEMENTS. (TO BE PHASED TO ALLOW FOR CONTINUED USE OF EXISTING SITE)
APPROXIMATE LOCATION OF TOWN OF NAGS HEAD 8" WATERLINE
EXISTING STOP SIGN & NO LEFT TURN SIGN
EXISTING STOP SIGN & RIGHT TURN ONLY SIGN
TRAFFIC LIGHT SIGNALS
N62°06'01"E 246.56'
N62°06'01"E 384.93'
RELOCATE EXISTING FIRE HYDRANT AND INSTALL CONSTRUCTION ENTRANCE
EXISTING INFILTRATION BASIN
EXISTING CONCRETE
EXISTING TRANSFORMER
EXISTING BIKE RACK
EX. ONE STORY METAL STORAGE BUILDING ON SLAB FIRST FLOOR ELEV. = 10.35
PREVIOUSLY APPROVED BUILDING ADDITION
EX. ONE STORY FRAME RETAIL BUILDING ON SLAB FIRST FLOOR ELEV. = 11.35
EXISTING HANDICAPPED PARKING SIGNS
INSTALL SILT FENCE ALONG PROPERTY LINE
PORTION OF EXISTING FENCE TO BE REMOVED
EX. WOOD FENCE
EX. 6' WOOD FENCE
S62°07'04"W 168.50'
S62°07'04"W 78.06'
S62°07'04"W 375.00'
S24°11'06"E 154.01'
N69°12'39"W 256
N/F
FOSTER SHARP, LLC
LOT 4A
CHARLES L SINEATH DIVISION
P.C. E, SL. 370
D.B. 1734, PG. 240
3833 17 11 1444
ZONED: C3
USE: SERVICE
N/F
IRYNA COHEN
LOT 8A
CAROLINIAN COLONY
(M.B. 4, PG. 35)
P.C. E, SL. 828
D.B. 2810, PG. 179
3833 17 11 1280
ZONED: R-2
USE: SINGLE FAMILY RESIDENTIAL
N/F
MICHAEL W. KELLY
LOT L
CAROLINIAN COLONY
M.B. 4, PG. 35
D.B. 1396, PG. 95
3833 17 11 9573
ZONED: R-2
USE: VACANT LAND
N/F
SANTOS VENTURA MAGHADO
JOVITA AMEZQUITA IBARRA
LOT K
CAROLINIAN COLONY
M.B. 4, PG. 35
D.B. 3479, PG. 581
3833 17 11 5406
ZONED: R-2
USE: VACANT LAND
N/F
QUAIL RUN BUSINESS CENTER, LLC
LOT 1, CAROLINIAN COLONY
M.B. 4, PG. 35
D.B. 1396, PG. 203
3833 17 11 7536
ZONED: C-2
USE: RETAIL
RETAINING WALL 1' SOUTH OF ℄ WOOD BRACE 0.9' SOUTH OF ℄
APPROXIMATE LOCATION OF EXISTING FORCEMAIN TO DRAINFIELD
EX. WOOD WALK TO BE REMOVED
EXISTING SEPTIC TANK AND PUMP TANK
STEPS ENCROACH 1.4'
HEAT PUMPS
WOOD BRACE 0.8' SOUTH OF ℄
RETAINING WALL 1' SOUTH OF ℄
EXISTING BIKE RACK
EXISTING STOP SIGN
EXISTING RETAINING WALL
SEPTIC ALARM AND CONTROLS
BUFFER YARD "C"
SWALE
SIGN
STOP SIGN & RIGHT TURN ONLY SIGN
STOP SIGN
EXISTING DRAINFIELD (N.G.V.D. 1929)
(6) 60' LINES @ 6' O.C.
REPAIR AREA (NAD 83)
EXISTING CONCRETE SIDEWALK
US HIGHWAY 158 (100' R/W)
APPROXIMATE LOCATION OF TOWN OF NAGS HEAD 8" WATERLINE
APPROXIMATE LOCATION OF TOWN OF NAGS HEAD 8" WATERLINE
UTILITY VAULT
SIGN
SIGN
SIGN

DATE: PAGE:

8' MAX. STANDARD STRENGTH FABRIC WITH WIRE FENCE
6' MAX. EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE





Notes:
1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.
4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches. Wire mesh should be a minimum 14-gauge with 6 inch mesh spacing.
6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.
11. Do not place across ditches, streams, or any other areas of concentrated flow.

Max. Slope Length and Slope for Which Sediment Fence is Applicable

Slope	Slope Length (ft)	Max. Area (ft²)
<2%	100	10,000
2 to 5%	75	7,500
5 to 10%	50	5,000
10 to 20%	25	2,500
>20%	15	1,500

Maintenance:
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.
3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.
4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

DEQ Energy, Mineral and Land Resources

SEDIMENT FENCE

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

DATE: PAGE:

CONSIDERATIONS FOR CONSTRUCTION SCHEDULING

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
CONSTRUCTION ACCESS: Construction entrance, construction routes, equipment parking areas.	First land-disturbing activity- Stabilize bare areas immediately with gravel and temporary vegetation as construction takes place.
SEDIMENT TRAPS AND BARRIERS: Basin traps, sediment fences, and outlet protection.	Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
RUNOFF CONTROL: Diversions, perimeter dikes, water bars, and outlet protection.	Install key practices after principal sediment traps and before land grading. Install additional runoff-control measures during grading.
RUNOFF CONVEYANCE SYSTEM: Stabilize streambanks, storm drains, channels, inlet and outlet protection, and slope drains.	Where necessary, stabilize streambanks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
LANDING CLEARING AND GRADING: Site preparation- cutting, filling and grading, sediment traps, barriers, diversions, drains, and surface roughening.	Begin major clearing and grading **AFTER** principal sediment and key runoff-control measures are installed. Clear borrow and disposal areas only as needed. Install additional control measures as grading progresses. Mark trees and buffer areas for preservation.
SURFACE STABILIZATION: Temporary and permanent seeding, mulching, sodding and riprap.	Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
BUILDING CONSTRUCTION: Buildings, utilities, and paving.	Install necessary additional erosion and sedimentation control practices as work takes place.
LANDSCAPE AND FINAL STABILIZATION: Topsoiling, trees and shrubs, permanent seeding, mulching, sodding, and riprap.	Last construction phase: Stabilize all open areas, including borrow and spoil areas. Remove and stabilize all temporary control areas.

NOTE: The above are the main aspects of a typical construction sequence in general terms. A detailed Construction Sequence should be site specific based on your project and site needs. As a minimum, the construction sequence schedule should show the following:
- The erosion and sedimentation control practices to be installed,
- Principal development activities,
- What measures should be in place before other activities are begun, and
- Compatibility with the general construction schedule of the contract.

Many timely construction techniques can reduce the erosion potential of a site, such as (1) shaping earthen fills daily to prevent overflows and (2) constructing temporary diversions ahead of anticipated storms. These types of activities cannot be put on the construction sequence schedule, but should be used whenever possible.

DEQ Energy, Mineral and Land Resources

CONSTRUCTION SEQUENCING

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

DATE: PAGE:

TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding Dates
Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1- May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

Species	Rate (lb/acre)
German millet	40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates
Mountains — May 15 - Aug. 15
Piedmont — May 1 - Aug. 15
Coastal Plain — Apr. 15 - Aug. 15

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

Species	Rate (lb/acre)
Rye (grain)	120

Seeding Dates
Mountains — Aug. 15 - Dec. 15
Coastal Plain and Piedmont — Aug. 15 - Dec. 31

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance
Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

SEED BED PREPARATION:

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.
FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

DEQ Energy, Mineral and Land Resources

TEMPORARY SEEDING

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

DATE: PAGE:

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

SEEDING MIXTURE

Species	Rate
Centipede	5 lbs/acre
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1
Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15

Maintenance:
Significant maintenance may be required to obtain desired cover.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE

Species	Rate
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - July 15- Aug 15
Piedmont - Aug 15 - Oct 15

Maintenance:
Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR FALL

SEEDING MIXTURE

Species	Rate
Hard Fescue	15 lbs/acre
Switchgrass	2.5-3.5 lbs/acre*
Indian Grass	5-7 lbs/acre*
Big Bluestem	5-7 lbs/acre*
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates
Mountains - Hard Fescue- Aug 1 - June 1
Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15
Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

Maintenance:
Hard Fescue is not recommended for slopes > 5%. Prefers shade.

SEED BED PREPARATION:

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1½ tons/acre on coarse0textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.
FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. all ridges and depressions shall be removed and filled to provide the approved surface drainage . Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

NOTES:
1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table.
2. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted.
3. Use a seeding mix that will produce fast0growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at leaser 80% of the soil surface.
4. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

DEQ Energy, Mineral and Land Resources

PERMANENT SEEDING

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

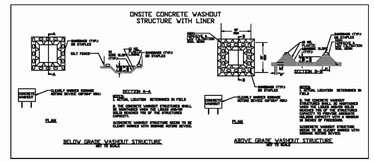
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24-hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24-hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24-hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24-hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes [After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours,*** an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.43(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

Albemarle & ASSOCIATES, LTD.
Engineering - Environmental - Land Planning
Albemarle & Associates, Ltd.
115 West St. Clair Street
P.O. Box 3388
Raleigh, NC 27948
Phone: (252) 441-2113
Fax: (252) 441-0965
www.albemarleassociates.com
Cert. of Licensure No. C-1027

This document is the property of Albemarle & Associates, Ltd. All rights reserved. Any unauthorized use or alteration is prohibited.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 46796 JAMES MICHAEL HARRIS MACHINES IN MOTION DELIVERING

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DEMO AND EROSION CONTROL NOTES & DETAILS

TW'S BAIT & TACKLE
2230 S CROATAN HIGHWAY

NAGS HEAD | NAGS HEAD TOWNSHIP | DARE COUNTY | NORTH CAROLINA

DATE:	01/14/2026
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	KCA
CHECKED:	JMD
FILE:	06135L

SCALE: 1" = 30'

C102

PROJ. NO. 06135L

SITE PLAN NOTES:

1. CONTACT INFORMATION:

   OWNER & DEVELOPER:
   COASTAL BLUEWATER CAPITAL, LLC
   PO BOX 969
   NAGS HEAD, NC 27959

2. PARCEL DATA:

   LOT 1A–1R, CHARLES L. SINEATH SUBDIVISION
   RECORDED IN P.C. I, SL. 357, DB 2636, PG 444.
   DARE COUNTY PIN #: 9893 17 11 6794
   PROPERTY ADDRESS: 2230 S CROATAN HIGHWAY, NAGS HEAD

   LOT 2A–1R, CHARLES L. SINEATH SUBDIVISION
   RECORDED IN P.C. I, SL. 357, DB 2755, PG 26
   DARE COUNTY PIN #: 9893 17 11 3533
   PROPERTY ADDRESS: 0 W. SATTERFIELD LANDING, NAGS HEAD

   (PARCELS HAVE RECENTLY BEEN RECOMBINED, LOT 1–3, P.C. K, SL. 133, BUT DARE COUNTY GIS HAS NOT BEEN UPDATED AT TIME OF THIS PLAN.)

   THE PROPERTY IS ZONED (C–2) GENERAL COMMERCIAL DISTRICT.

3. PROJECT DESCRIPTION:

   THE OWNER INTENDS TO CONVERT THE PREVIOUSLY APPROVED STORAGE AREA TO 4,774 SF RETAIL AND CONSTRUCT TWO ADDITIONAL BUILDINGS TO ACCOMMODATE ADDITIONAL RETAIL USE AND STORAGE.

4. FLOODPLAIN INFORMATION:

   THE SITE IS LOCATED IN FIRM ZONE (X) PER FIRM MAP NUMBER 3720989300K, EFFECTIVE DATE JUNE 19, 2020. (SUBJECT TO CHANGE BY FEMA).

5. SURVEY INFORMATION:

   EXISTING FEATURES, TOPOGRAPHIC, WETLAND AND BOUNDARY SURVEY INFORMATION HAS BEEN OBTAINED BY SEABOARD SURVEYING & PLANNING, INC. ON APRIL 16, 2018. AND UPDATED AS PER SITE PLAN BY ALBEMARLE & ASSOCIATES, LTD. ON OCTOBER 27, 2022.

   ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE SPECIFIED. ELEVATIONS SHOWN ARE HEREON PER NAVD88.

   AREAS SHOWN ARE BY COORDINATE METHOD.

6. PROJECT AREA AND WETLANDS:

   THERE ARE NO JURISDICTIONAL WETLANDS ON THE PROPERTY.

   TOTAL PROPERTY AREA = 96,228.52 SF (2.209 ACRES)

7. MINIMUM BUILDING SETBACKS:

   FRONT – 15'
   SIDE – 5' MINIMUM, 15' TOTAL FOR A C–2 CORNER LOT
   REAR – 25'

8. LOT AREA:

   PARCEL 1A–1R – 58,373.65 SF (1.340 ACRES)
   PARCEL 2A–1R – 37,854.87 SF (0.869 ACRES)
   TOTAL – 96,228.52 SF (2.209 ACRES)
   (PARCELS HAVE RECENTLY BEEN RECOMBINED, P.C. K, SL. 133)

9. LOT COVERAGE:

   THE ALLOWABLE COVERAGE IS: 52,925.69 SF
   (96,228.52 SF X 55% = 52,925.69 SF)

   THE PROPOSED LOT COVERAGE IS:

	EXISTING
BUILDING & CANOPIES	13,608.34 SF
HP STAND & WOOD WALK	192.90 SF
CONCRETE	3,861.50 SF
PAVEMENT	10,283.78 SF
BIKE RACK	8.00 SF
TURFSTONE	4,265.88 SF*
INTERCONNECTION	–183.00 SF*
TOTAL	32,037.40 SF
TO BE REMOVED (PHASE ONE)	
CANOPIES	– 457.68 SF
ASPHALT & CONCRETE	–1,877.64 SF
TURFSTONE	– 362.65 SF*
WOOD WALK	– 74.05 SF
NEW IMPROVEMENTS (PHASE ONE)	
NEW BUILDING ADDITION	3,079.68 SF
NEW PORCH	163.32 SF
NEW CONCRETE	41.52 SF
TOTAL	32,549.90 SF (33.83%)
*DEDUCTION FOR INTERCONNECTION = –183 SF	
*EX TURFSTONE = 6,366.98 SF X 0.67 = 4,265.88 SF	
*TURFSTONE TBR = 541.27 SF X 0.67 = 362.65 SF	
NEW IMPROVEMENTS (PHASE TWO)	
NEW BUILDING A	3,000.00 SF
NEW BUILDING B	6,750.00 SF
NEW COVERED BREEZEWAY	240.00 SF
NEW PERMEABLE HVY DUTY	4,931.66 SF*
NEW PERMEABLE STND	4,338.59 SF*
NEW CONCRETE PARKING, CURB & GUTTER	1,667.01 SF
NEW CONCRETE SIDEWALK	1,232.67 SF
NEW DUMPSTER PAD	200.00 SF
NEW HVAC STANDS	90.00 SF
NEW WALK–IN COOLER	144.00 SF
NEW IMPROVEMENTS (PHASE THREE)	
REMOVE AND REPLACE EX. ASPHALT	–8,835.96 SF*
WITH PERMEABLE CONCRETE	5,920.09 SF
NEW COVERAGE	52,227.96 SF (54.27%)

*NEW PERMEABLE HVY DUTY 7,360.69 SF X 0.67 = 4,931.66 SF
*NEW PERMEABLE STND 6,475.50 SF X 0.67 = 4,338.59 SF
*EX. ASPHALT TO PERMEABLE 8,835.96 SF X 0.67 = 5,920.09 SF

10. PARKING REQUIREMENTS:

    USE (RETAIL) 1 SPACE/250 SF GROSS FLOOR AREA
    USE (ART GALLERY) 1 SPACE/350 SF GROSS FLOOR AREA
    1 SPACE / EMPLOYEE

    EX FLOOR AREA (RETAIL) – 7,534 SF
    EX MEZZANINE FLOOR AREA (RETAIL) – 1,538 SF
    NEW EXPANSION (RETAIL) – 4,774 SF
    BUILDING A (ART GALLERY) – 2,000 SF
    BUILDING B (RETAIL) – 2,500 SF
    REQUIRED:
    RETAIL – 16,346 SF/250 PER SF = 66 SPACES
    ART GALLERY – 2,000 SF/300 PER SF = 7 SPACES

    1 SPACE/EMPLOYEE x 7 EMP = 7 SPACES
    3 BIKE RACKS* = –3 SPACES

    USE (STORAGE) 9,500 SF
    (NO PARKING REQUIRED)

    REQUIRED: 77 SPACES REQUIRED
    PROVIDED: 79 SPACES PROVIDED
    *(REDUCTION WITH USE OF BIKE RACKS (C.U.P.)
    PREVIOUSLY APPROVED VIA BOC SUP ON JANUARY 4, 2023.

    PARKING SPACE AREA = 6,604 SF; REQUIRED AREA (10%) = 660.40 SF
    INTERIOR PARKING LOT LANDSCAPE AREA = 679.30 SF

11. STORMWATER MANAGEMENT:

    STORMWATER FROM THE PARKING LOT AND PORTION OF THE EXISTING AND PROPOSED BUILDINGS IS BEING INFILTRATED THROUGH PERVIOUS CONCRETE AND EXISTING TURFSTONE WHICH PROVIDES STORAGE IN THE AGGREGATE BASE AND SAND SUBGRADE IN EXCESS OF THE TOWN REQUIRED 4.3" OF RAINFALL. THE EXISTING STORAGE BUILDING CURRENTLY DRAINS INTO THE EXISTING INFILTRATION BASIN WHICH IS BEING MAINTAINED. DRAINAGE FROM THE REAR OF THE NEW STRUCTURES IS BEING COLLECTED FROM ROOF GUTTERS AND CONVEYED TO THE BASIN AS WELL. EXISTING OVERFLOW PIPING ON THE EAST PARKING LOT CONVEYS ANY RUNOFF NOT INFILTRATED FROM THE TURFSTONE INTO THE INFILTRATION BASIN. A SIMILAR PIPING SYSTEM ON THE NEW PARKING WILL ALSO CONVEY AND EXCESS RUNOFF NOT INFILTRATED FROM THE PERVIOUS CONCRETE INTO THE BASIN. THE COMBINED STORAGE CAPACITY FROM THE PERVIOUS PAVEMENT AND BASIN ACCOUNTS FOR APPROXIMATELY 2.5 TIMES THE TOWN REQUIREMENTS.

12. EROSION AND SEDIMENTATION CONTROL:

    AREA TO BE DISTURBED: 54,824 SF (1.26 ACRE)

    ALL DISTURBED AREAS SHALL BE STABILIZED WITH A COASTAL VEGETATION MIX AS INDICATED ON THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.

    INSTALL THE CONSTRUCTION ENTRANCE AS SHOWN ON C101. A SECONDARY CONSTRUCTION ENTRANCE CAN BE INSTALLED AT THE PROPOSED EASTERN DRIVEWAY (SEE C101).

13. BUFFERING:

    THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL BUFFERING. ALL REQUIRED BUFFER AREAS SHALL BE MAINTAINED IN GOOD CONDITION SO AS TO PRESENT A HEALTHY AND ORDERLY APPEARANCE AND SHALL BE KEPT FREE FROM REFUSE AND DEBRIS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE REPLACEMENT OF PLANTS DAMAGED BY INSECTS, DISEASE, VEHICULAR TRAFFIC, AND VANDALISM.

14. SITE LIGHTING:

    NEW SITE LIGHTING ON EXPANSION WILL BE PROVIDED WITH DOMINION POWER LED SHOEBOX AREA LIGHTS WITH 8,951 LUMENS, CCT = 2,700, TYPE 3 LIGHTING PATTERN MOUNTED ON 30' POLES.

15. UTILITIES:

    ALL NEW UTILITIES ARE TO BE PLACED UNDERGROUND.

16. STRUCTURES:

    THE BUILDING WILL COMPLY WITH THE NORTH CAROLINA STATE BUILDING CODE AND CURRENT NFPA REQUIREMENTS. ALL HANDICAP ACCESSIBILITY TO BE CONSTRUCTED TO MEET THE NC BUILDING CODE VOLUME AIC.

    THE BUILDING HEIGHT SHALL NOT EXCEED 35'.

17. WASTEWATER:

    A NEW BED TYPE SEPTIC SYSTEM TO SERVICE NEW BUILDINGS IS PROPOSED.

18. SIGNS:

    SIGN SHALL BE ERECTED IN ACCORDANCE WITH SECTION 10.24 OF THE TOWN OF NAGS HEAD ZONING CODE.

19. SOLID WASTE:

    SITE WILL CONTINUE TO BE SERVED BY DUMPSTERS CONFIGURED FOR FRONT LOAD PICK–UP.

20. FIRE DEPARTMENT CONNECTION:

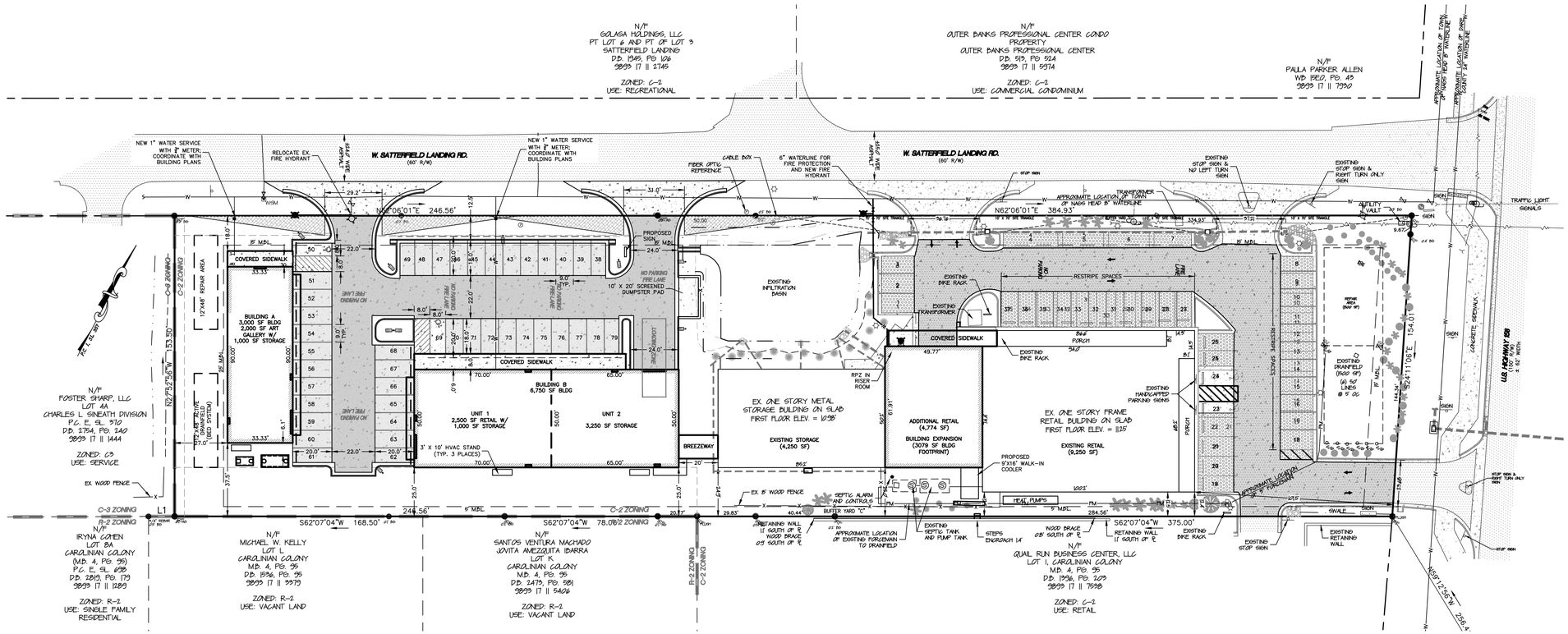
    RPZ FOR SPRINKLER FOR THE EXISTING BUILDING AND EXPANSION WILL BE LOCATED IN A RISER ROOM LOCATED WITHIN THE BUILDING. THE FIRE DEPARTMENT CONNECTION (FDC) WILL BE COORDINATED WITH THE FIRE MARSHALL AND WILL BE LOCATED ON THE BUILDING. BUILDINGS A & B WILL NOT INCLUDE A SPRINKLER SYSTEM.



VICINITY MAP

811 Know what's below. Call before you dig.

PRELIMINARY ONLY NOT FOR CONSTRUCTION



GRAPHIC SCALE
0 15 30 60
(IN FEET)
1 INCH = 30 FT.

LEGEND

- IRON ROD FOUND
- RIGHT OF WAY
- PROPERTY BOUNDARY
- EXISTING POWER POLE
- EXISTING GUY WIRE
- OVERHEAD ELECTRIC
- EXISTING TELEPHONE PEDESTAL
- EXISTING CABLE TV PEDESTAL
- EXISTING FIBER OPTIC REFERENCE
- EXISTING LIGHT POLE
- EXISTING CONCRETE
- EXISTING PAVEMENT
- EXISTING TURFSTONE
- PROPOSED CONCRETE (SIDEWALKS AND HC PARKING)
- PROPOSED PERMEABLE CONCRETE HEAVY DUTY (DRIVE AISLE, APRONS)
- PROPOSED PERMEABLE CONCRETE STANDARD (PARKING SPACES)
- EXISTING CURB INLET
- EXISTING DROP INLET
- STORMWATER FLOW ARROW
- EXISTING DRAINAGE PIPE
- EXISTING DITCH/SWALE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY VALVE
- EXISTING SANITARY CLEANOUT
- EXISTING FORCEMAIN
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING WATERLINE
- HANDICAP PARKING
- SIGNAGE
- TRAFFIC FLOW ARROWS
- WHEELSTOPS
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING LANDSCAPING

Albemarle & ASSOCIATES, LTD.
Engineering - Environmental - Land Planning

Albemarle & Associates, Ltd.
115 West St. Clair Street
P.O. Box 3889
Kitty Hawk, NC 27949
Phone: (252) 441-2113
Fax: (252) 441-0965
www.albemarleassociates.com
Cert. of Licensure No. C-1027

This document is the property of Albemarle & Associates, Ltd. All rights reserved. Any unauthorized use or alteration is prohibited.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15736 KYLE C. ANDERSON DELVECKIO

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	01.14.2026	PER TRC COMMENTS	KCA

SITE PLAN

TW'S BAIT & TACKLE
2230 S CROATAN HIGHWAY

NAGS HEAD TOWNSHIP — DARE COUNTY — NORTH CAROLINA

DATE:	12/18/2025
SURVEYED:	SEE NOTES
DESIGNED:	JMD
DRAWN:	KCA
CHECKED:	JMD
FILE:	06135L

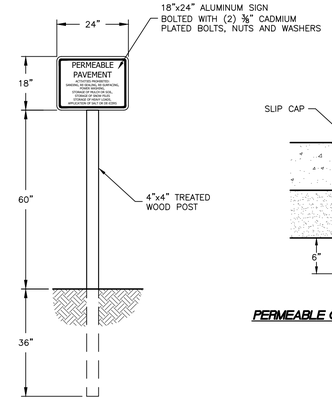
SCALE: 1" = 30'

C201

PROJ. NO. 06135L

PERMEABLE CONCRETE PAVEMENT NOTES:

1. CONTRACTOR QUALIFICATION: CONTRACTORS SHALL HAVE SUCCESSFULLY INSTALLED PERVIOUS CONCRETE AT LEAST THREE TIMES IN THE LAST THREE YEARS. LIKEWISE, THE CONCRETE SUPPLIER SHALL HAVE PRODUCED PERVIOUS CONCRETE FOR AT LEAST THREE PROJECTS IN THE LAST THREE YEARS.
2. MIX DESIGN: THE CONTRACTOR SHALL SUBMIT A PROPOSED MIX DESIGN WITH PROPORTIONS OF MATERIALS PRIOR TO WORK. CEMENT CONTENT SHALL NOT BE LESS THAN 600 LBS PER CY. AGGREGATE SHALL BE AT LEAST 2000 LBS/CY. CONCRETE COMPRESSIVE STRENGTH SHALL BE AT LEAST 2500 PSI. POROSITY SHALL BE 20% BY VOLUME. PERMEABILITY SHALL BE AT LEAST 3 GAL/SF/MIN. SLUMP SHALL BE NO GREATER THAN 3/4 INCH.
3. CEMENT: CEMENT SHALL BE PORTLAND CEMENT TYPE 1 OR 2 (ASTM C150) OR TYPE IP OR IS (ASTM C595 OR C1157).
4. AGGREGATE: AGGREGATE SHALL BE COURSE (3/8" TO NO. 89 PER ASTM D 448). AGGREGATE SHALL BE TRIPLED WASHED PRIOR TO MIX.
5. AIR ENTRAINING AGENT: SHALL COMPLY WITH ASTM C 260.
6. ADMIXTURES: TYPE A, B & D SHALL COMPLY WITH ASTM D 494.
7. SUBGRADE: SUBGRADE SHALL BE COMPACTED TO 92% MAXIMUM DRY DENSITY (AASHTO T 180).
8. MIXING: CONCRETE SHALL BE MIXED AT THE SPEED SPECIFIED BY THE MANUFACTURER FOR 75 TO 100 REVOLUTIONS.
9. PLACEMENT: CONCRETE SHALL BE PLACED WITHIN 1 HOUR OF MIXING UNLESS OTHERWISE APPROVED. UPON DISCHARGE, CONCRETE SHALL BE INSPECTED. CEMENT SHALL CONTAIN A WET METALLIC SHEEN. DISCHARGE SHALL BE PLACED AS CLOSE TO FINAL POSITION AS POSSIBLE. CONCRETE SHALL NOT BE PULLED OR SHOVELED INTO FINAL PLACEMENT. CONCRETE SHALL BE PLACED WITHIN FORMS AND COMPACTED WITH A ROLLER APPLYING AT LEAST 10 PSI PRESSURE.
10. CURING: PAVEMENT SHALL BE COVERED WITH A MIN. 6 MIL THICK POLYETHYLENE SHEET WITHIN 20 MINUTES OF PLACEMENT.
11. TEST PANELS: PRIOR TO PLACEMENT OF PERVIOUS CONCRETE, THE CONTRACTOR SHALL PLACE AT LEAST 2 TEST PANELS. TEST PANELS SHALL BE AT LEAST 225 SF. TEST PANELS SHALL BE TESTED FOR COMPACTED THICKNESS , VOID SPACE UNIT WEIGHT AND POROSITY. COMPACTED THICKNESS SHALL BE WITHIN 1/4" (MINUS) AND ½" (PLUS) DESIGN THICKNESS. VOID SPACE SHALL BE WITHIN 5%. CORES FOR TEST PANELS SHALL BE TAKEN AT LEAST 7 DAYS AFTER PLACEMENT OF TEST PANELS.
12. JOINTING: SHALL BE INSTALLED AT 40 INTERVALS AT A DEPTH OF ¼ THE PAVEMENT THICKNESS. CONTROL JOINT SHALL ALIGN WITH SUB-BASE BENCHES. TRANSVERSE JOINTS SHALL BE PLACED WHENEVER OPERATIONS ARE SUSPENDED FOR A PERIOD OF TIME WHERE CONCRETE BEGINS TO HARDEN. BONDING AGENTS SHALL BE SPRAYED UPON THE JOINT. EXPANSION JOINTS SHALL BE PLACED WHERE PERVIOUS CONCRETE BORDERS OTHER STRUCTURES OR SLABS, INCLUDING CONCRETE SIDEWALKS.
13. PHASING: POROUS CONCRETE SHALL NOT BE PLACED UNTIL ANY POTENTIAL SOURCE OF SEDIMENT OR OTHER CONTAMINATION IS STABILIZED AND NO LONGER POSES A THREAT TO THE POROUS CONCRETE.

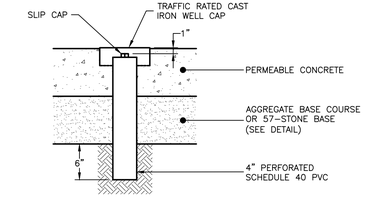


PERMEABLE PAVEMENT WARNING SIGN

NTS

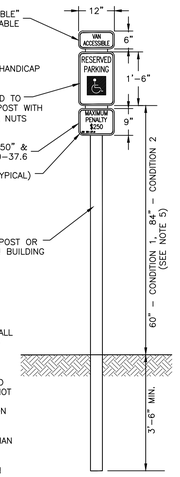
TWO (2) SIGNS SHALL BE PROVIDED AT THE PARKING LOT IDENTIFYING THE POROUS CONCRETE. SIGN SHALL READ:

PERMEABLE PAVEMENT
ACTIVITIES PROHIBITED:
SANDING, RE-SEALING, RE-SURFACING, POWER WASHING, STORAGE OF MULCH OR SOIL, STORAGE OF SNOW PILES, STORAGE OF HEAVY LOADS, APPLICATION OF SALT OR DE-ICERS



PERMEABLE CONCRETE OBSERVATION WELL DETAIL

NTS



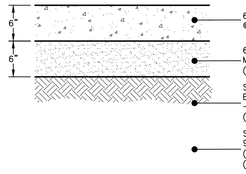
NOTES:
1. REGARDLESS OF AGE, ALL ACCESSIBLE SPACES SHALL BE IDENTIFIED BY ABOVEGROUND SIGNS ONLY (SEE N.C.G.S.)
2. NEW SPACES SHALL NOT USE GROUND-PAINTED SYMBOLS.
3. ACCESSIBLE SPACES ARE REQUIRED TO BE STRIPED OFF ONLY; BLUE COLORING IS NOT NECESSARY NOT REQUIRED.
4. STRIPING IS WHITE ON DARK PAVEMENT; BLACK ON LIGHT PAVEMENT. (N.C.D.O.T.)
5. CONDITION 1: PEDESTRIAN PATH DOES NOT PASS UNDER OR AROUND SIGN. CONDITION 2: PEDESTRIAN PATH GOES BY, UNDER, OR AROUND SIGN.
6. STANDARD SIGN COLORS: BACKGROUND - WHITE, LETTERING/BORDER - GREEN, FIGURE - WHITE ON BLUE FIELD.

HANDICAPPED PARKING SIGN DETAIL

NTS

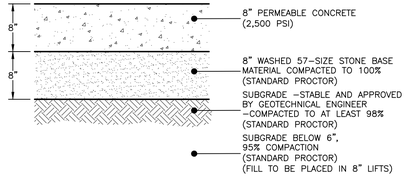
WATERLINE NOTES:

1. NEW 6 INCH WATERLINE TO PROVIDE FIRE PROTECTION WILL BE INSTALLED AS INDICATED ON THE PLANS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND ALL APPLICABLE REGULATIONS.
2. EXISTING OVERHEAD AND UNDERGROUND ELECTRICAL, CABLE TV, AND TELEPHONE LINES SHALL BE PROTECTED DURING CONSTRUCTION.
3. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH TOWN WATER AND FIRE DEPARTMENT PERSONNEL, ALBEMARLE & ASSOCIATES, LTD., AND THE UNDERGROUND UTILITY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. ALL MECHANICAL JOINTS SHALL USE ROMAC INDUSTRIES, INC. GRIP-RING PIPE RESTRAINERS IN ACCORDANCE WITH ALL MANUFACTURERS GUIDELINES.
5. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND BOTH SHALL BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. ADDITIONALLY, THE CONTRACTOR SHALL NOTIFY BOTH NC ONE CALL (811) AND THE TOWN OF NAGS HEAD WATER DEPARTMENT 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH APPLICABLE REGULATIONS.
6. ALL UTILITIES SHALL BE CONSTRUCTED AND PLACED IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE REGULATIONS AND STANDARDS. THE CONTRACTOR SHALL REFER TO WATERLINE SPECIFICATIONS FOR THE TOWN OF NAGS HEAD AS APPROVED BY THE STATE.
7. TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE ACCOMPLISHED IN A MANNER TO PREVENT DAMAGE AND MISALIGNMENT OF THE PIPE. WATERLINES SHALL BE BURIED TO A DEPTH SUFFICIENT TO PROVIDE A MINIMUM 36 INCHES OF COVER.
8. NEW WATERLINES SHALL BE TESTED FOR LEAKAGE AND ANY NECESSARY REPAIRS AND RE-TESTING SHALL BE ACCOMPLISHED AS SPECIFIED IN THE AWWA C600 AND THE TOWN OF NAGS HEAD STANDARDS.
9. ALL VALVES INSTALLED IN WATER DISTRIBUTION SYSTEMS SHOULD MEET AWWA C500, C504, C507, C509 AND ANY OTHER APPROPRIATE STANDARDS AS PUBLISHED BY THE AMERICAN WATER WORKS ASSOCIATION, INC. COPIES ARE AVAILABLE FOR PUBLIC INSPECTION AT THE PRINCIPAL ADDRESS OF THE PUBLIC WATER SUPPLY SECTION, DIVISION OF ENVIRONMENTAL HEALTH. FURTHER, ALL VALVES MUST BE INSTALLED IN SUCH A MANNER AS TO BE READILY ACCESSIBLE BY THE USE OF AN APPROPRIATE VALVE BOX AND COVER.
10. WATER DISTRIBUTION SYSTEMS, AFTER FLUSHING TO REMOVE SEDIMENT AND OTHER FOREIGN MATTER AS DIRECTED BY THE TOWN WATER AND FIRE DEPARTMENTS, AND AFTER TESTING FOR LEAKS, SHALL BE DISINFECTED BY THE ADDITION AND THOROUGH DISPERSION OF A CHLORINE SOLUTION IN CONCENTRATIONS SUFFICIENT TO PRODUCE A CHLORINE RESIDUAL OF AT LEAST 50 MILLIGRAMS PER LITER (OR PPM) IN THE WATER THROUGHOUT THE DISTRIBUTION SYSTEM PER AWWA C651.
11. THE CHLORINE SOLUTION SHALL REMAIN IN CONTACT WITH INTERIOR SURFACES OF THE WATER SYSTEM FOR A PERIOD OF 24 HOURS. THEN THE WATER SYSTEM SHALL BE FLUSHED WITH FRESH WATER FROM AN APPROVED WATER SOURCE UNTIL THE CHLORINE SOLUTION IS DISPELLED.
12. REPRESENTATIVE SAMPLES OF THE WATER SHALL THEN BE COLLECTED. IF BACTERIOLOGICAL TEST OF THE SAMPLES INDICATE THAT THE WATER QUALITY IS SATISFACTORY, THE WATER MAINS MAY BE PLACED IN SERVICE.



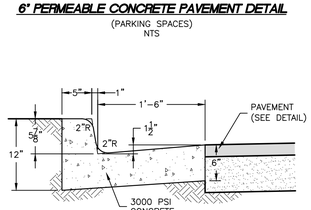
6" PERMEABLE CONCRETE PAVEMENT DETAIL

(PARKING SPACES)
NTS



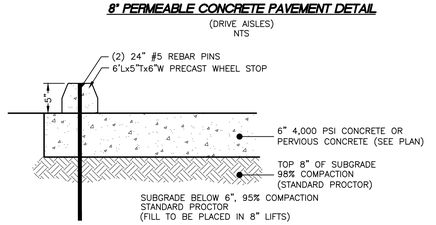
8" PERMEABLE CONCRETE PAVEMENT DETAIL

(DRIVE AISLES)
NTS



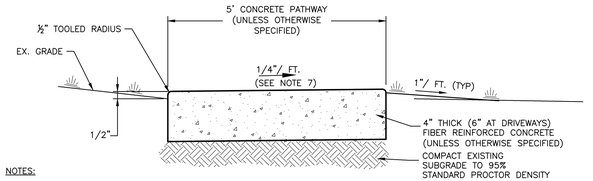
STANDARD CURB AND GUTTER

NTS



CONCRETE PAVEMENT AND WHEELSTOP DETAIL

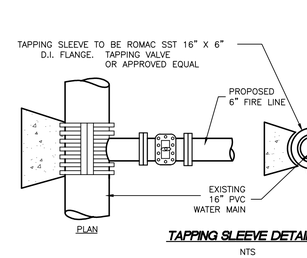
NTS



NOTES:
1. ALL CONCRETE SHALL BE 3,000 PSI, 4" THICK, UNLESS NOTED OTHERWISE. DRIVE APRONS AND PATHWAY AT DRIVEWAYS SHALL BE 6" THICK CONCRETE SHALL BE PREPARED IN ACCORDANCE WITH ACI 211.1, ACI 301 AND ASTM C94.
2. CONTROL JOINTS SHALL BE PLACED PERPENDICULAR TO THE EDGE OF PAVEMENT AT 5' SPACING. CONTROL JOINTS SHALL BE SAWED.
3. EXPANSION JOINTS SHALL BE PLACED AT THE END OF EACH SECTION OF CONSTRUCTION INCLUDING THE LOCATIONS THAT PAVEMENT ABUTS EXISTING PAVEMENT AND AT 30' INTERVALS. EXPANSION JOINT MATERIAL SHALL BE ½" THICK AND CONFORM TO ASTM D 1751.
4. LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.
5. A BROOMED SURFACE FINISH SHALL BE PROVIDED UNLESS OTHERWISE APPROVED BY THE OWNER.
6. TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
7. REFER TO PLANS FOR SLOPE DIRECTION.

CONCRETE SIDEWALK DETAIL

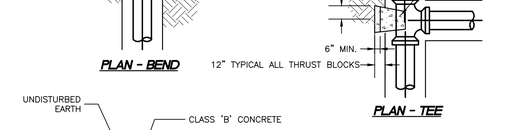
NTS

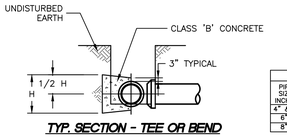


TAPPING SLEEVE DETAIL

NTS

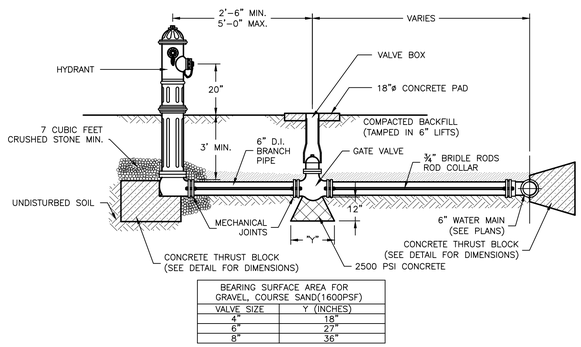
NOTES:
1. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
2. SEE STANDARD THRUST BLOCK TABLES FOR AREA OF CONCRETE REQUIRED.





THRUST BLOCKS
NTS

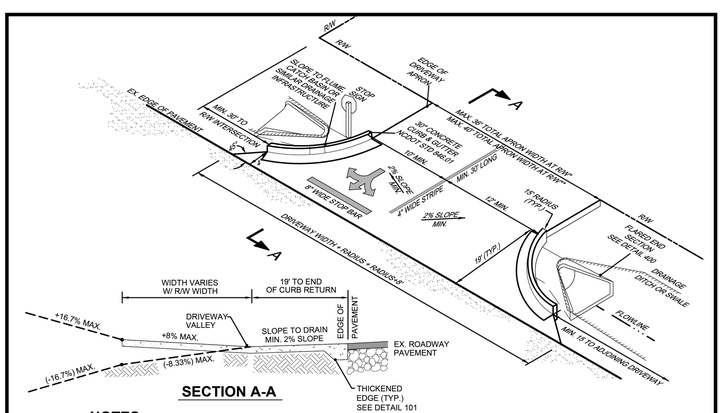
CONCRETE THRUST BLOCK SCHEDULE											
PIPE SIZE INCHES	BEND										DESIGN PRESSURE PSI
	90° (TEE)			45°			22 1/2°		11 1/4°		
	H	L	L	H	L	L	H	L	H	L	
4" & 2"	1.0'	2.0'	1.0'	2.0'	1.0'	2.0'	1.0'	2.0'	1.0'	2.0'	100
6"	1.75'	2.5'	1.75'	2.0'	1.75'	2.0'	1.75'	2.0'	1.75'	2.0'	100
8"	2.0'	3.5'	2.0'	3.0'	2.0'	2.0'	2.0'	2.0'	2.0'	2.0'	100



BEARING SURFACE AREA FOR GRAVEL, COURSE SAND(1600PSF)	
VALVE SIZE	Y (INCHES)
4"	18"
6"	27"
8"	36"

FIRE HYDRANT DETAIL

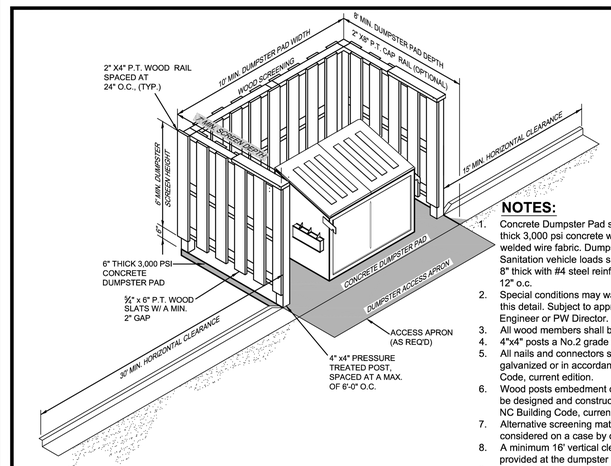
NTS



SECTION A-A

NOTES:
1. All driveways must meet the current Town driveway requirements and NCDOT requirements for spacing, sight distance, and offsets from property lines and intersections.
2. Special conditions may warrant exceptions to this detail. Subject to approval by Town Engineering or Public Works Director.
3. Driveway width shall not exceed 36' when not served by tractor/trailer traffic (AASHTO WB-40)*.
4. Driveway width shall not exceed 40' when served by tractor/trailer traffic (AASHTO WB-40)**.
5. Driveway aprons shall be constructed of a min. 4" thick, 3000 psi concrete or 6" ABC base course with a 2" asphalt surface course.

TOWN OF NAGS HEAD DEPARTMENT OF ADMINISTRATION P.O. BOX 99 NAGS HEAD, NC 27959 252.441.7016 • www.nagsheadnc.gov	TYPICAL COMMERCIAL DRIVEWAY DETAIL SMALL PARKING LOT LAYOUT (FOR SMALL PARKING LOTS WITH LESS THAN 36 PARKING STALLS)	SCALE: NONE ISSUE DATE: 7-9-2015 REVISION DATE: 1-3-2019 SHEET NO: 1 OF 1 DRAWN BY: DMR	DETAIL NO.: 200



NOTES:
1. Concrete Dumpster Pad shall be a minimum 6" thick 3,000 psi concrete with a min. W1.4xW1.4 welded wire fabric. Dumpster aprons subject to Sanitation vehicle loads shall be a minimum of 8" thick with #4 steel reinforcement spaced @ 12" o.c.
2. Special conditions may warrant exceptions to this detail. Subject to approval by Town Engineer or PW Director.
3. All wood members shall be pressure treated.
4. 4"x4" posts a No.2 grade or better.
5. All nails and connectors shall be hot dipped galvanized or in accordance with NC Building Code, current edition.
6. Wood posts embedment depth and footing shall be designed and constructed in accordance with NC Building Code, current edition.
7. Alternative screening material may be considered on a case by case basis.
8. A minimum 16' vertical clearance shall be provided at the dumpster pad.
9. Multiple bulk container layouts shall be reviewed & approved by the PW Director.

TOWN OF NAGS HEAD DEPARTMENT OF PUBLIC WORKS P.O. BOX 99 NAGS HEAD, NC 27959 252.441.1122 • www.nagsheadnc.gov	TYPICAL COMMERCIAL DUMPSTER PAD WITH WOOD SCREEN DETAIL (FOR SIDE LOADING DUMPSTER CONFIGURATIONS)	SCALE: NONE ISSUE DATE: 7-9-2015 REVISION DATE: SHEET NO: 1 OF 1 DRAWN BY: DMR	DETAIL NO.: 203

Albemarle & ASSOCIATES, LTD.
Engineering - Environmental - Land Planning
Albemarle & Associates, Ltd.
115 West St. Clair Street
P.O. Box 3889
Edenton, NC 27948
Phone: (252) 441-2113
Fax: (252) 441-0965
www.albemarleassociates.com
Cert. of Licensure No. C-1027

This document is the property of Albemarle & Associates, Ltd. All rights reserved. Any unauthorized use or alteration is prohibited.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15736 JOSEPH M. DEVLIN

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	01.14.2026	PER TRC COMMENTS	KCA

SITE DETAILS

TW'S BAIT & TACKLE
2230 S CROATAN HIGHWAY

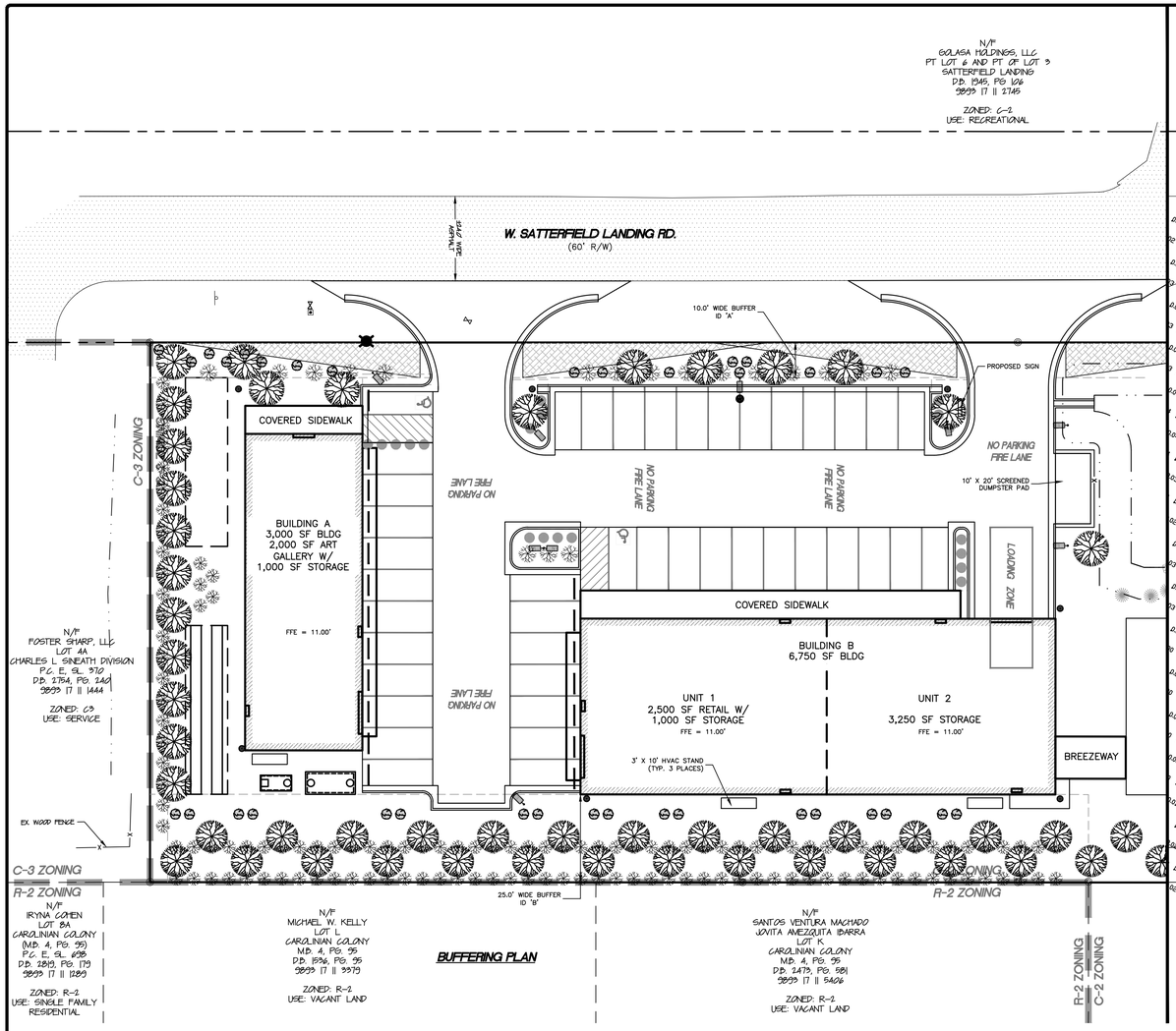
NAGS HEAD TOWNSHIP — DARE COUNTY — NORTH CAROLINA

DATE:	12/18/2025
SURVEYED:	SEE NOTES
DESIGNED:	JMD
DRAWN:	KCA
CHECKED:	JMD
FILE:	06135L

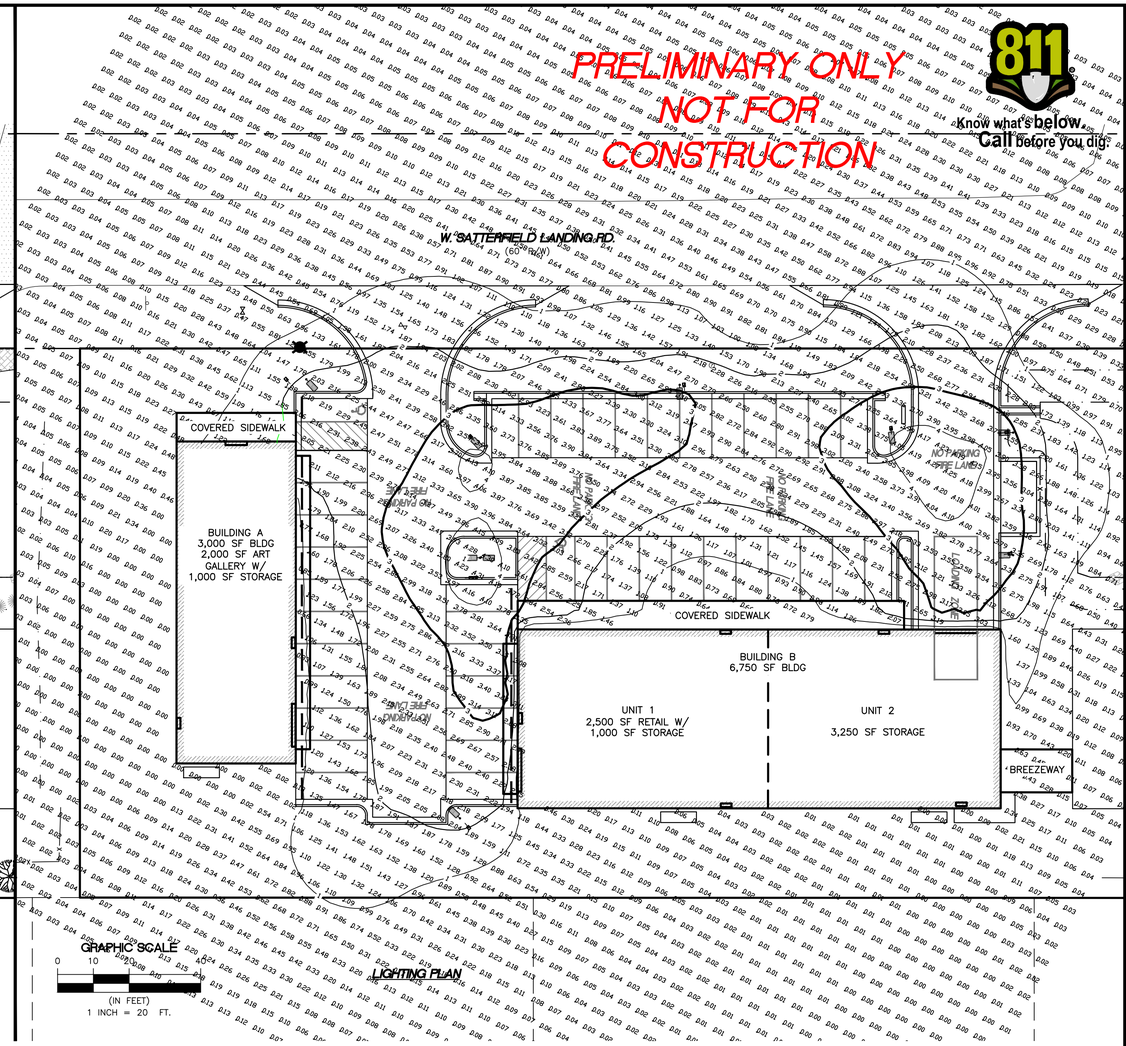
SCALE: 1" = 30'

C202

PROJ. NO. 06135L



BUFFERING PLAN



LIGHTING PLAN

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

LANDSCAPE NOTES:

PREPARATION:
LAYOUT TREE AND SHRUB LOCATIONS AND AREAS AND SECURE LANDSCAPE DESIGNERS APPROVAL BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE REQUESTED. FINE GRADE LAWN AREAS TO A SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL, RAKE AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINAL GRADE. LIMIT FINE GRADING TO AREAS THAT CAN BE PLANTED IMMEDIATELY AFTER GRADING.

EXCAVATION FOR TREES AND SHRUBS:
EXCAVATE PITS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION. FOR BALLED AND BURLAPPED, AND POTTED (B&B TREES AND SHRUBS), MAKE EXCAVATIONS AT LEAST HALF AGAIN AS WIDE AS THE ROOT BALL DIAMETER AND EQUAL TO THE ROOT BALL DEPTH, PLUS ALLOWING FOR SETTING OF ROOT BALL ON A LAYER OF COMPACTED BACKFILL.

PLANTING TREES AND SHRUBS:
SET BALLED AND BURLAPPED AND POTTED STOCK ON LAYER OF COMPACTED PLANTING SOIL MIXTURE, PLUMB AND IN THE CENTER OF THE PIT OR TRENCH, WITH THE TOP OF THE ROOT BALL AT THE SAME ELEVATION AS ADJACENT FINISHED LANDSCAPE GRADES. WHEN SET, PLACE ADDITIONAL BACKFILL AROUND BASE AND SIDES OF ROOT BALL, AND WORK EACH LAYER TO ELIMINATE VOIDS AND AIR POCKETS. WHEN EXCAVATION IS APPROXIMATELY 2/3 FULL, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. WATER AGAIN AFTER PLACING FINAL LAYER OF BACKFILL. MULCH PITS, TRENCHES AND PLANTED AREAS. PROVIDE NOT LESS THAN 3" THICKNESS OF MULCH AND FINISH LEVEL WITH ADJACENT GRADE.

SEEDING NEW LAWNS:
DO NOT USE WET SEED OR SEED WHICH IS SLIGHTLY MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE. SOW SEED USING A DROP SPREADER OR SEEDING MACHINE. DO NOT SEED WHEN WIND VELOCITY EXCEEDS 5 MPH UNLESS USING A DROP SPREADER. DISTRIBUTE SEED EVENLY OVER ENTIRE AREA BY SOWING EQUAL QUANTITIES IN 2 DIRECTIONS AT RIGHT ANGLES TO EACH OTHER. SOW NOT LESS THAN THE QUANTITY OF SEED SPECIFIED OR SCHEDULED BY THE SEED MANUFACTURER OR SUPPLIER FOR THE TYPE OF SEED BEING SOWED. RAKE SEED LIGHTLY INTO TOP 1/8" OF SOIL, ROLL LIGHTLY AND WATER WITH A FINE SPRAY. LAY TURF STARTING IN THE CENTER AND WORKING TOWARDS THE SIDES. TURF SHALL BE LAID PARALLEL TO THE LONGEST EDGE OF FINISHED AREA AND SHALL BE LAID WITH STAGGERED SEAMS. EDGE TURF AFTER INSTALLATION IS COMPLETED. WATER THOROUGHLY.

CLEAN-UP AND PROTECTION:
DURING LANDSCAPE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED.

LANDSCAPING, BUFFERING AND VEGETATION PRESERVATION

BUFFERYARDS SHALL CONTAIN 3 TREES, 15 SHRUBS AND 30 ORNAMENTAL GRASSES OR HERBACEOUS PLANTS PER EVERY 100 FEET (ARTICLE 10.93.2.1)

GENERAL:
- AT A MINIMUM, 50% OF THE NUMBER OF PLANTS SHALL BE LOCALLY ADAPTED EVERGREEN SPECIES (ARTICLE 10.93.2.4)
- TREES SHALL BE A MINIMUM OF 5' HEIGHT AT TIME OF PLANTING WITHIN THE COMMERCIAL TRANSITIONAL BUFFER AND 3' IN HEIGHT AND 1" DIAMETER (MEASURED AT 18" ABOVE GRADE) IN OTHER LOCATIONS. (ARTICLE 10.93.3.1.3).
- SHRUBS SHALL BE A MINIMUM OF 18" HEIGHT AT TIME OF PLANTING. 50% OF THESE SHALL BE SPECIES THAT ARE EXPECTED TO REACH A HEIGHT OF 5' WITHIN THREE YEARS (ARTICLE 10.93.3.1.4).

COMMERCIAL TRANSITIONAL PROTECTIVE YARDS:
- SHALL BE AT LEAST 25' IN WIDTH CONSIST OF THREE ROWS OF THE REQUIRED BUFFERYARD (ARTICLE 10.93.3.2.2). SEE SITE BUFFERING SUMMARY TABLE FOR COMPLIANCE.

BUILDINGS ADJACENT TO STREET FRONTAGE:
- NOT APPLICABLE

INTERIOR PARKING LOTS LANDSCAPING:
- EXTERIOR PARKING AREA IS 6,604 SF WHICH REQUIRES A PARKING LOT LANDSCAPE AREA OF 6,604.4 SF (10%). 679 SF IS PROVIDED.

VEGETATIVE PRESERVATION / PLANTING REQUIREMENTS:
- THE SITE WAS PREVIOUSLY CLEARED AND IS MOSTLY GRASSED. REQUIFEMENTS PLANS INCLUDE PLANTING A MINIMUM OF 15% OF THE TOTAL LOT AREA (7,939 SF). THE NUMBER OF PLANTS WITHIN THE PARKING LOT BUFFER AND COMMERCIAL TRANSITIONAL BUFFER ACCOUNT FOR 10,800 SF. HOWEVER, TOWN CODE ONLY ALLOWS HALF OF THE BUFFER REQUIREMENTS TO BE APPLIED TO LANDSCAPE PRESERVATION REQUIREMENTS (3,969.5 SF). AN ADDITIONAL 20 TREES AND 40 SHRUBS ARE NEEDED TO MEET THIS REQUIREMENT. SEE SITE BUFFERING SUMMARY TABLE FOR COMPLIANCE.

BUFFER REQUIREMENTS FOR PROPOSED NEW DEVELOPMENT SUMMARY TABLE

BUFFER ID	TYPE	LENGTH	# TREES	PER		# SHRUBS	PER		TREES		SHRUBS	
									REQUIRED	PROVIDED	REQUIRED	PROVIDED
A	PARKING	123	3	100	LF	15	100	LF	3.7	4	18.5	19
B	COMMERCIAL TRANSITIONAL (HIGH IMPACT)	266	9	100	LF	45	100	LF	23.9	24	119.7	120

PRESERVATION REQUIREMENTS FOR PROPOSED DEVELOPMENT SUMMARY TABLE

BUFFER ID	TYPE	PERCENT	PROJECT AREA	PRESERVATION AREA REQUIRED
C	PRESERVATION	15%	52,925 SF	7,939 SF

COMPLIANCE WITH PRESERVATION REQUIREMENTS SUMMARY TABLE

		TREES		SHRUBS	
		PROVIDED	AREA (SF)	PROVIDED	AREA (SF)
TOTAL EQUIVALENT AREA PROVIDED BY BUFFERS:	9,750 SF	28	2,800	139	6,950
ALLOWED BUFFER CREDIT TO BE APPLIED: 50% =	3,969 SF				
ADDITIONAL PRESERVATION AREA CREDIT REQUIRED:	5,781 SF				
ADDITIONAL PRESERVATION AREA CREDIT PROVIDED:	4,000 SF	20	2,000	40	2,000
TOTAL PRESERVATION AREA CREDIT PROVIDED:	7,969 SF				

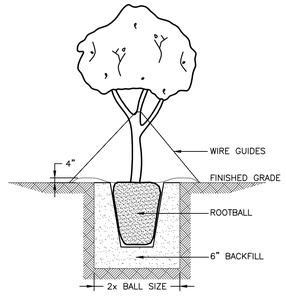
BUFFER YARD REQUIREMENTS:

TREES
(RECOMMENDED – JAPANESE BLACK PINE, RED BAY WILD OLIVE, CREPE MYRTLE)

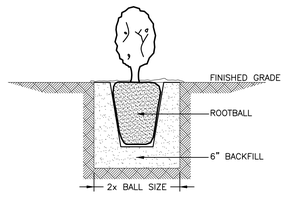
SHRUBS
(RECOMMENDED – JAPANESE PITTOSPORUM, NORTHERN BAYBERRY, YEDDO HAWTHORNE, OLEANDER, DWARF WITH ALDER)

ORNAMENTAL GRASSES OR HERBACEOUS PLANTS (<30" TALL)
(RECOMMENDED – SEASIDE GOLDEN ROD, BLANKET FLOWER, CYPRESS LAVENDER COTTON, BUTTERFLY WEED, PURPLE CONEFLOWER)

NOTE: A MINIMUM OF 50% OF THE BUFFER PLANTS SHALL BE LOCALLY ADAPTED EVERGREEN.



TREE PLANTING DETAIL
NTS



SHRUB PLANTING DETAIL
NTS

LIGHTING NOTES

THIS DRAWING REPRESENTS A COMPUTER GENERATED PHOTOMETRIC BASED UPON THE PROPOSED FIXTURE TYPES, MOUNTING HEIGHTS, LENSES AND ORIENTATION. ACTUAL LIGHT INTENSITIES WILL BE FIELD VERIFIED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE ORDINANCE.

PARKING LOT LIGHTS SHOWN ON PLAN ARE DOMINION POWER SHOEBOX 8,951 LUMEN WITH TYPE 3 DISTRIBUTION AND 2700K CCT MOUNTED AT 30'.
CANOPY LIGHTS UTILIZED IN THIS MODEL ARE ASSUMED TO BE 2,000 LUMEN MOUNTED AT 12' HEIGHT BASED ON PRELIMINARY ARCHITECT ESTIMATE.

ARBITRARY GRID:
HORIZONTAL ILLUMINANCE STATISTICS
AVE: 4.15 fc
MAX: 17.0 fc
MIN: 1.13 fc

8 PARKING LOT LIGHTS
American Electric Lighting ATB0 P203 R3 27K Autobahn Small P203
Package Roadway Type III 2700K (9338 lm; 70.0 W; 1xUser defined)

25 UNDER PORCH CANOPY LIGHTS
Cree Lighting NPCPY250-C-2L-30K8-F-UL-xx-xx-xxx CPY250 Canopy Luminaire, 2L Lumen Package, 3000K, 80 CRI, Flat Lens, 120–277V (2050 lm; 13.5 W; 1xSSC STWBC12C-E0)

Shoebox (150W - 250W EQ)



The Shoebox luminaire provides zero uplight distribution for lighting roadways and parking areas.

Comparable HID Wattage	Finish Color	Initial Lamp Lumens	Lighting Pattern	Correlated Color Temperature (CCT)	Input Wattage	Input Amps	Billing Tier	EPA	B-U-G Rating	Recommended Mounting Height (ft.)	Luminaire Stock#	WMIS CU Code
150	Gray	8951	Type III	2700K	70	0.67	3	0.76	2-0-2	25 - 30	42514332	LEDSBBA0832GXXX

Albemarle & Associates, Ltd.
115 West St. Clair Street
P.O. Box 3889
Raleigh, NC 27948
Phone: (252) 441-2313
Fax: (252) 441-0965
www.albemarle-associates.com
Cert. of Licensure No. C-1027

This document is the property of Albemarle & Associates, Ltd. All rights reserved. Any unauthorized use or alteration is prohibited.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15790 RYAN M. DELVICK

NO.	DATE	DESCRIPTION	BY
1	01.14.2026	PER TRC COMMENTS	KCA

Albemarle & Associates, Ltd.
Engineering - Environmental - Land Planning

BUFFER AND LIGHTING PLAN

TW'S BAIT & TACKLE
2230 S CROATAN HIGHWAY

NAGS HEAD | NAGS HEAD TOWNSHIP | DARE COUNTY | NORTH CAROLINA

DATE:	12/16/2025
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	KCA
CHECKED:	JMD
FILE:	06135L

SCALE: 1" = 20'

C203

PROJ. NO. 06135L

GRADING NOTES:

1. ALL CONSTRUCTION TRAFFIC SHALL UTILIZE THE CONSTRUCTION ENTRANCE AS DESIGNATED.
2. PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES, ALL EROSION AND SEDIMENTATION CONTROL MEASURES IDENTIFIED ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE EROSION CONTROL PLAN.
3. THE CONTRACTOR SHALL ENSURE THAT AREAS OUTSIDE OF THE LIMITS OF LAND DISTURBANCE AS WELL AS TREES SPECIFICALLY NOTED FOR PROTECTION ARE NOT ADVERSELY IMPACTED BY ANY CLEARING ACTIVITIES.
4. PRIOR TO FILLING THE SITE, THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL. AREAS WHICH ARE TO BE FILLED SHALL BE RAISED IN COMPACTED SEQUENTIAL LIFTS NOT TO EXCEED 8 INCHES IN DEPTH. FILL MATERIAL SHALL BE CLEAN, WELL GRADED SAND. TOPSOIL STOCKPILED CAN BE USED ON SITE FOR RESPREAD UPON COMPLETION OF FILL.
5. LIMITS OF SLOPES AND GRADING SHALL BE IN ACCORDANCE WITH THE LIMITS SHOWN HEREON.

DRAINAGE NOTES:

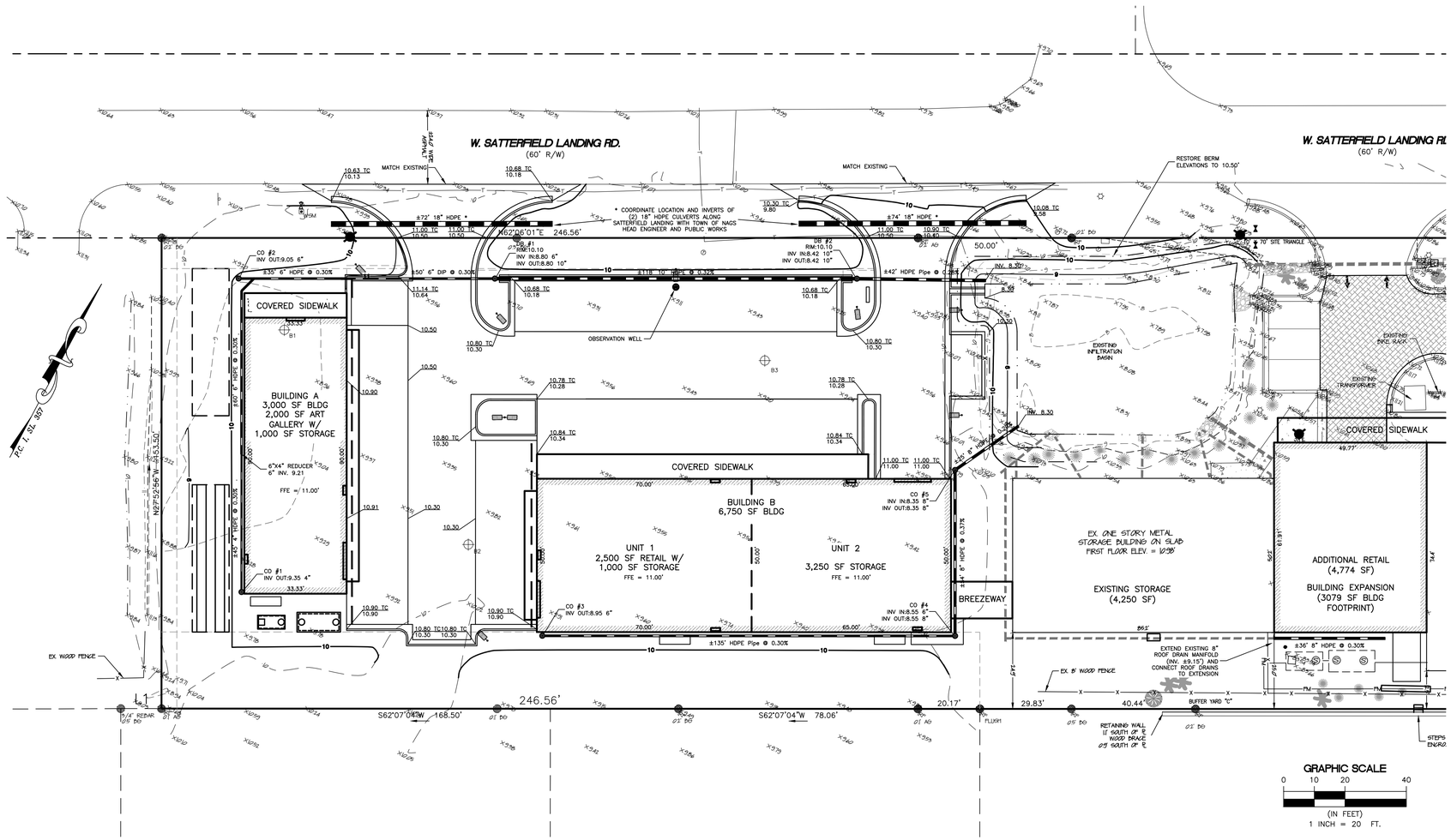
1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT NC ONE CALL (811) TO LOCATE UNDERGROUND UTILITIES.
2. ALL STORM SEWERS SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. STORM SEWERS SHALL BE SMOOTH INTERIOR, DOUBLE WALLED HDPE WITH GASKETED CONNECTIONS UNLESS OTHERWISE NOTED.
3. DRAINAGE STRUCTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

STORMWATER MANAGEMENT MAINTENANCE NOTES:

1. UPON ACCEPTANCE BY THE OWNER, IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE NECESSARY MAINTENANCE SO THAT THE STORMWATER SYSTEM WILL FUNCTION AS INTENDED.
2. AFTER EVERY RUNOFF PRODUCING RAINFALL OF 1 INCH OR MORE AND AT LEAST MONTHLY, INSPECT THE STORMWATER MANAGEMENT BASIN FOR EROSION, TRASH ACCUMULATION, VEGETATIVE COVER, AND GENERAL CONDITION. ALSO INSPECT THE INFLOW STRUCTURES, OUTLET STRUCTURE, RIP–RAP AND BASIN FOR OBSTRUCTION OR DETERIORATION. REMOVE ANY BLOCKAGE AND REPAIR THE STRUCTURE TO APPROVED DESIGN SPECIFICATIONS. INSPECT PERVIOUS PAVEMENT AFTER RAINFALL FOR SIGNS OF PONDING.
3. REPAIR ERODED AREAS IMMEDIATELY, RE–SEED AS NECESSARY TO MAINTAIN ADEQUATE VEGETATIVE COVER, REMOVE TRASH AS NEEDED.
4. CHECK FOR SEDIMENTATION WITHIN THE BASIN ANNUALLY. IF DEPOSITION OF MATERIAL IS OBSERVED WITHIN THE SYSTEM, REESTABLISH DESIGN GRADES AS INDICATED ON APPROVED SITE PLAN.INSPECT BASIN WALLS AND STRUCTURES TO ENSURE THAT THEY ARE MAINTAINED AT THEIR DESIGN ELEVATIONS. IF EROSION OCCURS, REESTABLISH DESIGN ELEVATIONS AS INDICATED ON APPROVED SITE PLAN. PERVIOUS PAVEMENT SHOULD BE CLEANED AT LEAST ANNUALLY WITH A VACUUM TRUCK OR HIGH POWERED BLOWER.

Know what's **below.**
Call before you dig.

PRELIMINARY ONLY
NOT FOR
CONSTRUCTION



GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FT.

LEGEND

- IRON ROD FOUND
- RIGHT OF WAY
- PROPERTY BOUNDARY
- EXISTING POWER POLE
- EXISTING GUY WIRE
- OVERHEAD ELECTRIC
- EXISTING TELEPHONE PEDESTAL
- EXISTING CABLE TV PEDESTAL
- EXISTING FIBER OPTIC REFERENCE
- EXISTING LIGHT POLE
- EXISTING CONCRETE
- EXISTING PAVEMENT
- EXISTING TURFSTONE
- PROPOSED CONCRETE (SIDEWALKS AND HC PARKING)
- PROPOSED PERMEABLE CONCRETE HEAVY DUTY (DRIVE AISLE, APRONS)
- PROPOSED PERMEABLE CONCRETE STANDARD (PARKING SPACES)
- EXISTING CURB INLET
- EXISTING DROP INLET
- STORMWATER FLOW ARROW
- EXISTING DRAINAGE PIPE
- EXISTING DITCH/SWALE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY VALVE
- EXISTING SANITARY CLEANOUT
- EXISTING FORCEMAIN
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING WATERLINE
- HANDICAP PARKING
- SIGNAGE
- TRAFFIC FLOW ARROWS
- WHEELSTOPS
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING LANDSCAPING

Albemarle & ASSOCIATES, LTD.
Engineering - Environmental - Land Planning

Albemarle & Associates, Ltd.
115 West St. Clair Street
P.O. Box 3889
Edenton, NC 27948
Phone: (252) 441-2113
Fax: (252) 441-0965
www.albemarleassociates.com
Cert. of Licensure No. C-1027

This document is the property of Albemarle & Associates, Ltd. All rights reserved. Any unauthorized use or alteration is prohibited.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15730 KYLE A. CASEY

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	01.14.2026	PER TRC COMMENTS	KCA

GRADING AND DRAINAGE PLAN

TW'S BAIT & TACKLE
2230 S CROATAN HIGHWAY

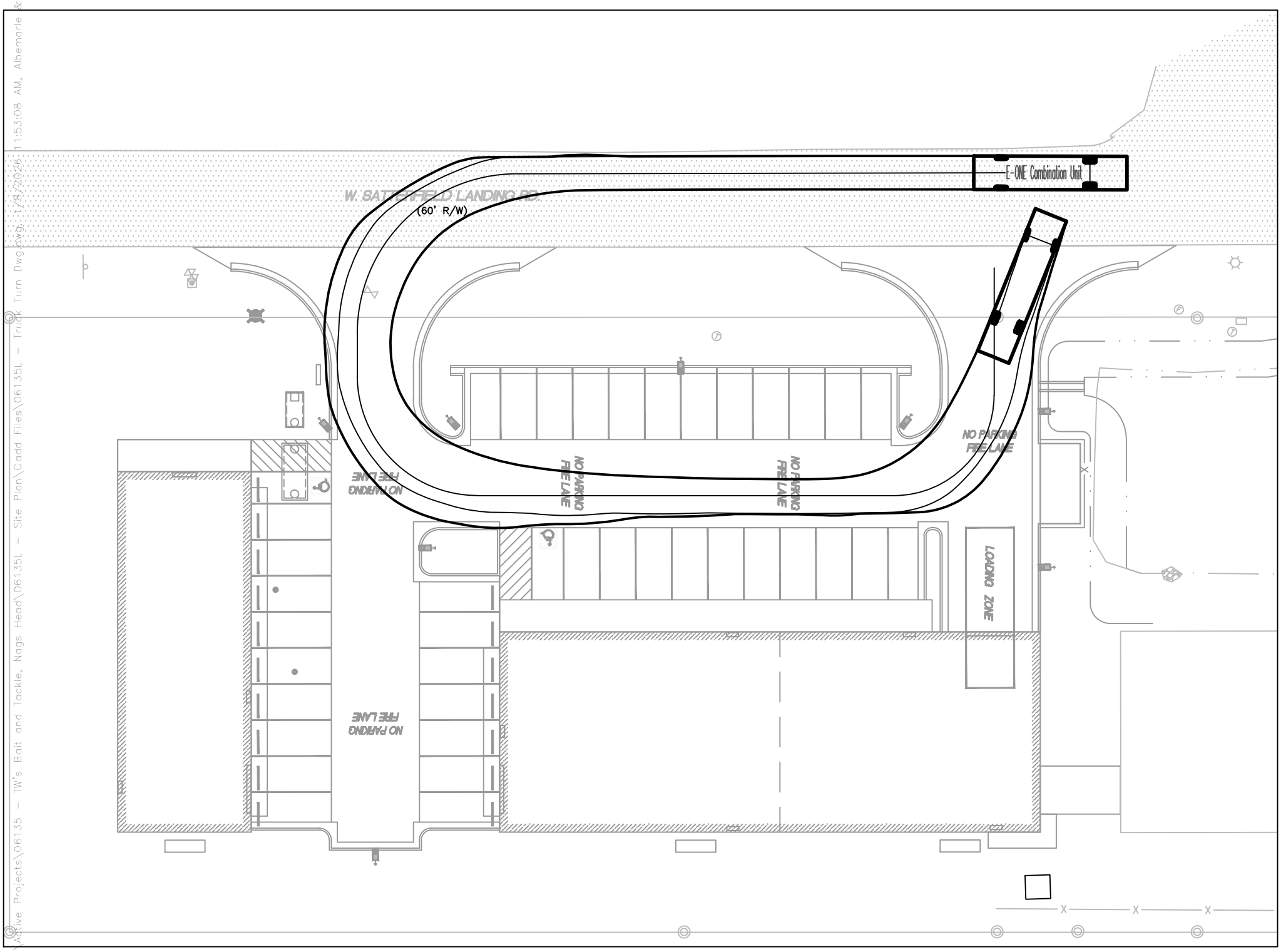
NAGS HEAD — NAGS HEAD TOWNSHIP — DARE COUNTY — NORTH CAROLINA

DATE:	12/18/2025
SURVEYED:	SEE NOTES
DESIGNED:	MJM
DRAWN:	KCA
CHECKED:	JMD
FILE:	06135L

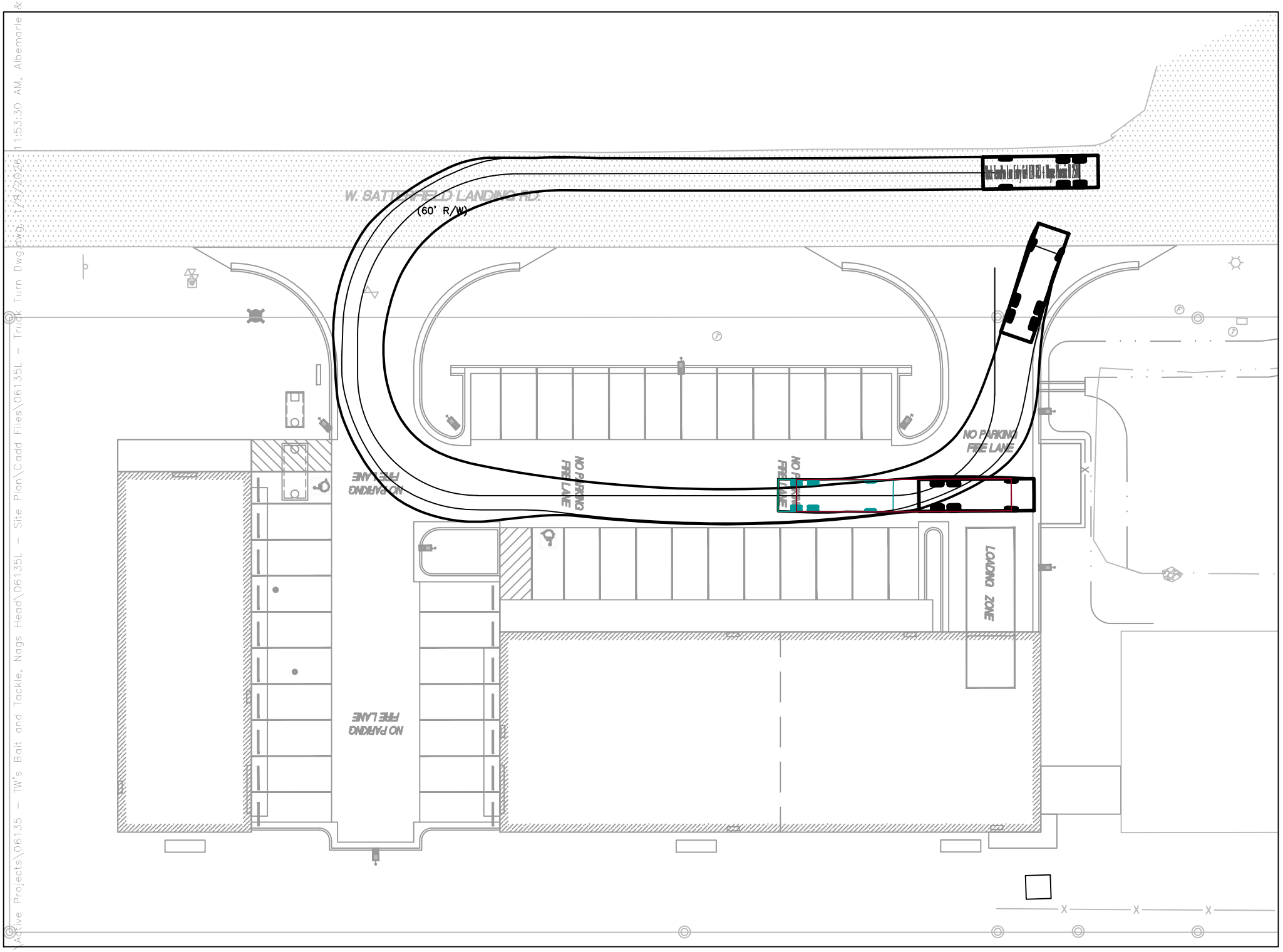
SCALE: 1" = 20'

C301

PROJ. NO. 06135L



NAGS HEAD FIRE TRUCK
VEHICLE TRACKING



NAGS HEAD SANITATION TRUCK
VEHICLE TRACKING

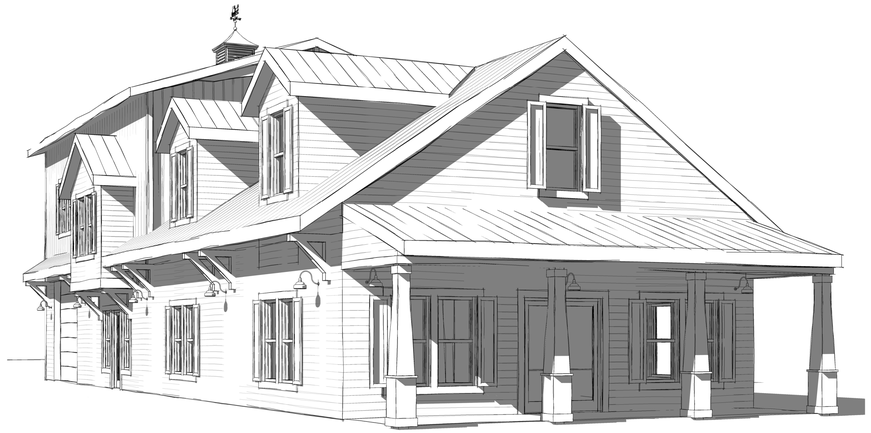
WINDOW AREA

WEST:
- WALL 1986 SF
- WINDOW 243 SF
- PERCENTAGE 12.2%

SOUTH:
- WALL 975 SF
- WINDOW 144 SF
- PERCENTAGE 14.8%

EAST:
- WALL 1986 SF
- WINDOW 243 SF
- PERCENTAGE 12.2%

NORTH:
- WALL 470 SF
- WINDOW 141 SF
- PERCENTAGE 30.0%



6 Perspective

DESIGN NARRATIVE

THE BUILDING DESIGN INTENT IS TO INCORPORATE THE DESIGN STRATEGIES OUTLINE IN SECTION 10.85.2 OF THE NAGS HEAD ORDINANCE.

SECTION 10.85.2.1 - THE BUILDING DESIGN INCLUDED PORCHES AND BRACKETED AWNINGS TO BRING THE SCALE OF THE BUILDING DOWN TO A MORE PEDESTRIAN LEVEL.

SECTION 10.85.2.2 & 3 - AS THE BUILDING IS GREATER THAN ONE STORY, WE HAVE ADDED ROOF BUMPS TO PROVIDE ELEVATION AND MASSING CHANGES TO GIVE THE BUILDING MORE VARIATION.

SECTION 10.85.2.4 - THE DESIGN INCLUDES SIDING CHANGES, BEAUTY BANKS, TRIM, AND BRACKETS TO ADD TO THE VISUAL APPEAL OF THE BUILDING.



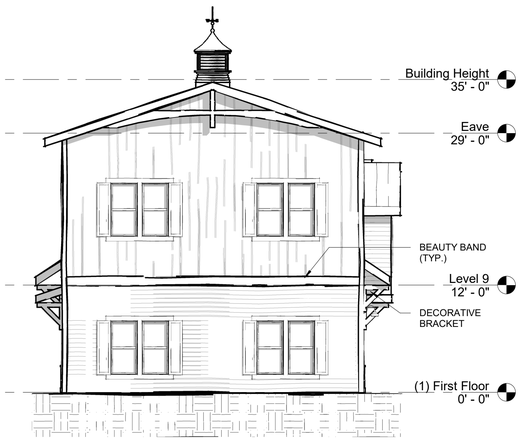
2 North Elevation
1/8" = 1'-0"



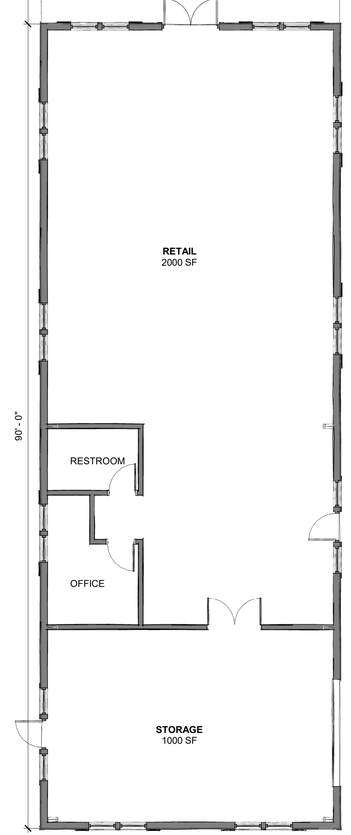
3 East Elevation
1/8" = 1'-0"



4 West Elevation
1/8" = 1'-0"



5 South Elevation
1/8" = 1'-0"



1 First Floor Plan
1/8" = 1'-0"

cahoon+kasten
ARCHITECTS
an INTEC Group studio
118 WEST WOODHILL DRIVE, NAGS HEAD, NC 27959
252.441.0271 P office@obxarchitects.com

Project:	**TW's Building A**
Project No:	**25060**
Location:	**2230 S Croatan Hwy Nags Head, NC 27959**
Title:	**Preliminary**
Date:	**February 10, 2026**
Scale:	**1/8" = 1'-0"**

The designer shall not be responsible for any error, omission, defect or deficiency in the contract documents ("error") prepared by the designer or its consultants which in any way impacts the schedule of the project, results in a lack of coordination among the contract documents, delays the completion of the project or which in any other way causes any damage or loss to the owner, contractor, subcontractors, or other entity involved in the project, unless: (i) designer is promptly notified of such error, in any event within 14 days of the date such error was discovered or could reasonably have been discovered; and (ii) designer is given opportunity at the time of discovery to address such error, and, if appropriate, take such steps as are necessary to correct and resolve it. Failure to comply with the provisions of this paragraph shall constitute a waiver of any claim for damages, or a right to offset against designer by owner, contractor or others and shall in no event cause or allow a reduction in the fees otherwise due designer for services provided on the project.

MARK AREY KASTEN — REGISTERED ARCHITECT — 25720 — NORTH CAROLINA — NAGS HEAD, NC

PRELIMINARY

STATE OF NORTH CAROLINA — INTEC GROUP OF NORTH CAROLINA, PLLC — C-2855 — REGISTERED ARCHITECTS

Revisions:

No.	Description	Date

Designed:	MAK
Drawn:	MAK
Reviewed:	MAK
Cad File:	

A1



6 Perspective

DESIGN NARRATIVE

THE BUILDING DESIGN INTENT IS TO INCORPORATE THE DESIGN STRATEGIES OUTLINE IN SECTION 10.85.2 OF THE NAGS HEAD ORDINANCE.

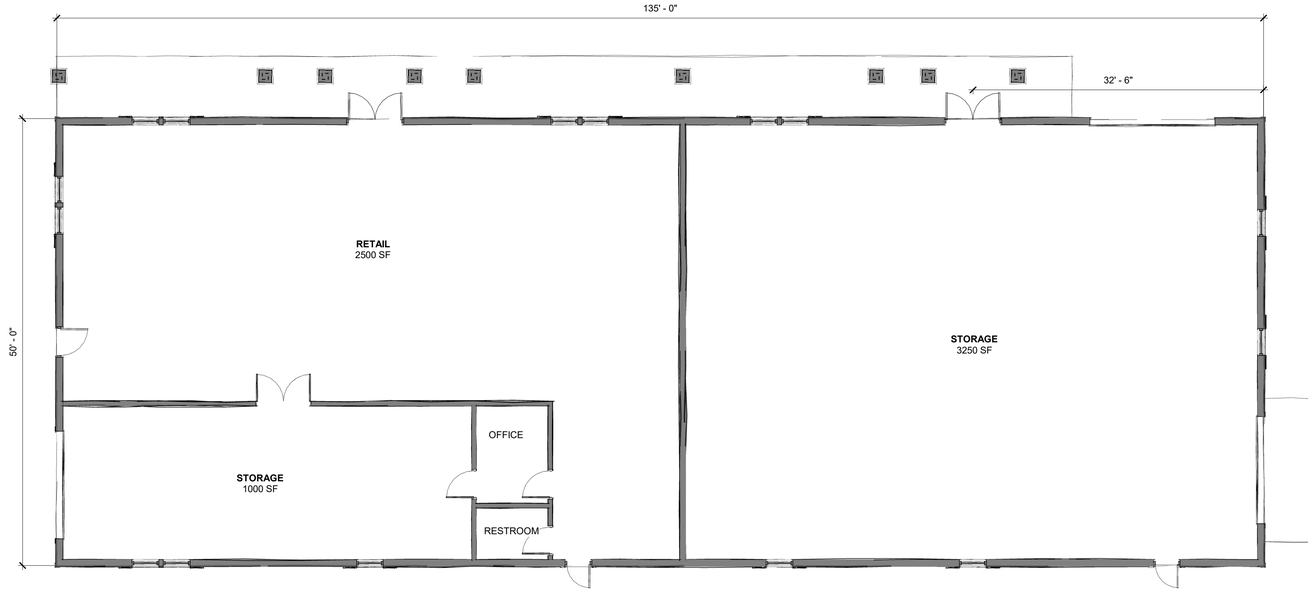
SECTION 10.85.2.1 - THE BUILDING DESIGN INCLUDED PORCHES AND BRACKETED AWNINGS TO BRING THE SCALE OF THE BUILDING DOWN TO A MORE PEDESTRIAN LEVEL.

SECTION 10.85.2.2 & 3 - AS THE BUILDING IS GREATER THAN ONE STORY, WE HAVE ADDED ROOF BUMPS TO PROVIDE ELEVATION AND MASSING CHANGES TO GIVE THE BUILDING MORE VARIATION.

SECTION 10.85.2.4 - THE DESIGN INCLUDES SIDING CHANGES, BEAUTY BANKS, TRIM, AND BRACKETS TO ADD TO THE VISUAL APPEAL OF THE BUILDING.

WINDOW AREA

WEST:		
	WALL	1169 SF
	WINDOW	117 SF
	PERCENTAGE	10.0%
SOUTH:		
	WALL	3520 SF
	WINDOW	354 SF
	PERCENTAGE	10.1%
EAST:		
	WALL	1265 SF
	WINDOW	144 SF
	PERCENTAGE	11.4%
NORTH:		
	WALL	2628 SF
	WINDOW	355 SF
	PERCENTAGE	13.5%



1 First Floor Plan
1/8" = 1'-0"



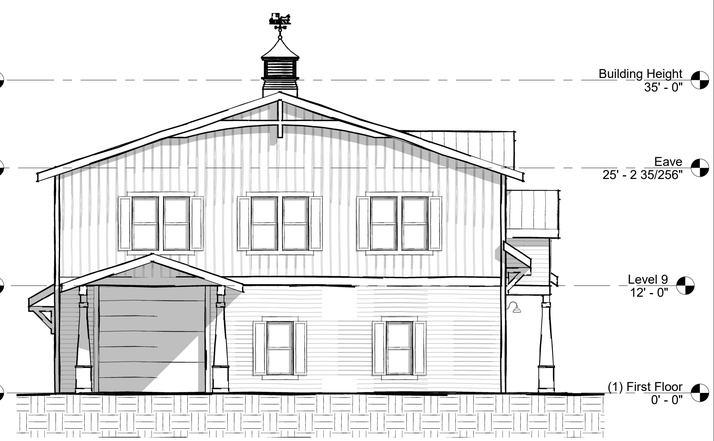
3 West Elevation
1/8" = 1'-0"



2 North Elevation
1/8" = 1'-0"



4 South Elevation
1/8" = 1'-0"



5 East Elevation
1/8" = 1'-0"

cahoon+kasten
ARCHITECTS
an INTEC Group studio
118 WEST WOODHILL DRIVE, NAGS HEAD, NC 27959
252.441.0271 P office@obxarchitects.com

Project: **TW's Buiding B/C**

Project No: **25060**

Location: **2230 S Croatan Hwy Nags Head, NC 27959**

Title: **Preliminary**

Date: **February 10, 2026**

Scale: **1/8" = 1'-0"**

The designer shall not be responsible for any error, omission, defect or deficiency in the contract documents ("error") prepared by the designer or its consultants which in any way impacts the schedule of the project, results in a lack of coordination among the contract documents, delays the completion of the project or which in any other way causes any damage or loss to the owner, contractor, subcontractors, or other entity involved in the project, unless: (i) designer is promptly notified of such error, in any event within 14 days of the date such error was discovered or could reasonably have been discovered; and (ii) designer is given opportunity at the time of discovery to address such error, and, if appropriate, take such steps as are necessary to correct and resolve it. Failure to comply with the provisions of this paragraph shall constitute a waiver of any claim for damages, or a right to offset against designer by owner, contractor or others and shall in no event cause or allow a reduction in the fees otherwise due designer for services provided on the project.

MARK AREY KASTEN REGISTERED ARCHITECT 7220 NORTH CAROLINA NAGS HEAD, NC

PRELIMINARY

STATE OF NORTH CAROLINA INTEC GROUP OF NORTH CAROLINA P.A. C-2855 REGISTERED ARCHITECTS

Revisions:

No.	Description	Date

Designed: MAK
Drawn: MAK
Reviewed: MAK
Cad File:

A1

AGENDA ITEM SUMMARY

Town of Nags Head Planning Board
REGULAR SESSION: February 17, 2026

AGENDA ITEM E.2.

Consideration of a Site Plan Review for construction of an 8,305 square foot Dare County EMS Station and associated improvements. The property is zoned SPD-C Village Commercial-1 and is located at 105 W. Seachase Drive.

Prepared by	Reviewed by
Kelly Wyatt, Planning Director	Kelly Wyatt

Staff Comments/Recommendation

Staff finds that the proposal is consistent with the applicable use and development standards, as well as the relevant land use plan policies. Based upon the staff's review of the proposal, we recommend approval of the Site Plan Review as submitted. Note, this recommendation does not include approval of any future additions as shown on the site plan. Any future additions will require a Site Plan Amendment consistent with the regulations in place at that time.

Staff would note that this item was previously reviewed and recommended for approval by the Planning Board at its November 19, 2024 meeting. The Board of Commissioners subsequently approved the Site Plan at its December 4, 2024 meeting.

Section 4.15.1, Time Limitations for Site Plans, Zoning Permits, and Building Permits, of the Unified Development Ordinance (UDO) states that final approval of a site plan by the Board of Commissioners, or approval of a zoning permit by the UDO Administrator, shall be valid for twelve (12) months from the date of approval. The Building Inspector may issue a building permit within twelve (12) months from the date of such approval, provided all other applicable requirements are met. If a building permit is not issued within twelve (12) months of the date of final approval, the site plan or zoning permit shall expire, and the applicant must submit a new site plan conforming to the then-current provisions of the UDO.

Pursuant to this provision, the December 4, 2024, Site Plan approval expired on December 4, 2025, as a building permit was not issued within the required twelve-month period.

The applicant has resubmitted the plan set for re-approval. The plans are substantially the same as those previously approved, with one architectural modification: the roofing material has been revised from a standing seam metal roof to a cedar shake roof, consistent with the required design elements within the Village at Nags Head.

Specific Action Requested

This item is provided for Planning Board review and recommendation.

Summary

General Information

Applicant: Timothy Oakley, of Oakley Collier Architects on behalf of Dare County

Application Type: Site Plan Review

Purpose/Request: Construction of an approximately 8,305 square foot Dare County Emergency Management Services (EMS) station and all associated site improvements. Note that "Future Additions" are not included as part of the Site Plan Review.

Property Location: 105 W. Seachase Drive, Nags Head

Existing Land Use: Office/Municipal Use

Zoning Classification of Property: SPD-C Village at Nags Head, Commercial 1 District

Zoning Classification of Surrounding Properties: Properties to the north, directly across W. Seachase Drive, and to the west are zoned SPD-C, Village Commercial-1 (OBX Mall and Rusty Crow Quilt Shop). Property to the east, directly across US Hwy 158 is zoned SPD-C, Village at Nags Head Commercial-2 (Village Realty). Property to the south is the zoned SPD-C, Village at Nags Head Institutional (Fire Station 16).

Flood Hazard Zone of Property: Property is located in an X Flood Zone. Per the Town of Nags Head local ordinance, the property is subject to an RFPE/LES of 9 ft. The proposed first floor of habitable space will be elevated to or above 13 ft. msl and is therefore compliant.

Land Use Plan Map/Policies: The 2022 Comprehensive Plan, Future Land Use Map classifies this property as General Commercial. While the use is more institutional in nature, it remains consistent with this land use classification and stated Land Use Policies.

Specific Information:

Applicable Zoning Regulations:

Use Regulations: Pursuant to the text amendment adopted by the Board of Commissioners at their November 6, 2024, meeting, "County EMS Station" is a permitted use within the Village at Nags Head Commercial 1 District.

Lot Coverage: Pursuant to Section 9.21.8.5 of the UDO, Table of Development Standards within the Village at Nags Head the maximum allowable lot coverage is 80% of the district area. The Village Commercial 1 District consists of The Outer Banks Mall, including the outparcels for Urgent Care and Outback Restaurant, the subject property, 111 W. Seachase Drive (Rusty Crow Quilt Shop) and the 7-lot subdivision, Sandcastle Village. While we do not have an updated survey for all improvements within this district, the lot coverage proposed for the redevelopment of this property for the EMS Station is reduced from 69.7% of the total lot area, to approximately 51% of the total lot area. Lot coverage is therefore compliant.

Height: The maximum allowable building height within the Town is 35 feet; however, pursuant to Section 8.2.1, Dimensional requirements, total height may be increased to 42 feet with the use of an 8:12 roof pitch or greater. The applicant has proposed a structure with an overall height of approximately 34 feet measured from grade. Therefore, height is compliant. A height certificate will be required to verify overall height compliance during construction.

Architecture Design Standards: Section 10.82 of the UDO, Applicability, states that Commercial Design Standards shall apply to all building construction or remodeling projects requiring a special use permit or site plan review. This project must adhere to the Commercial Design Standards set forth within Part VI of the UDO. As proposed, this project will comply with standards set forth in Division II – Building Design including a human scale design, various roof articulations including a watch tower, residential style windows, exterior

masonry with board and batten and shingle siding, workable shutters, and gable brackets.

This structure is located within the Village at Nags Head and as such should be reviewed and approved by their Architectural Control Committee (ACC). The applicant has provided the Village ACC with the architectural renderings and is awaiting their review comments.

Parking: At their November 6, 2024, meeting, the Board of Commissioners adopted a parking standard for EMS Stations of one (1) parking space per employee on duty and one (1) parking space per 200 square feet of training facility and customer service areas. The applicant has noted a maximum of 12 employees at shift change, requiring 12 parking spaces, no training areas and approximately 100 square feet of customer service area, requiring one parking space. This use is required to have a minimum of 13 parking spaces, 22 spaces have been provided. Therefore, parking is compliant.

Section 10.92.14.4 of the UDO, Surface Materials Appropriate for use, requires that a minimum of twenty (20) percent of the surface area of the parking area and drive aisles be constructed using permeable surface materials. The applicant has proposed 22.6% of the parking area be provided in an approved permeable surface. Therefore, this requirement is compliant.

Buffering/Landscaping: Several sections of the Unified Development Ordinance speak to Buffering and Landscaping as it applies throughout this proposed site:

- Section 9.21.7.14, General Provisions with the Village Commercial-1 District states that a buffer shall be maintained along property lines abutting any neighboring lots not a part of the shopping center (implying C-1 designation). The buffer shall be a 50-foot-wide grassed open space or a vegetated buffer of a minimum width of 5 feet that will reach a minimum height of 10 feet within five years. Sheet 2 of 5 of the Site Plan review packet demonstrates compliance with this provision, including preserving and maintaining a significant stand of mature vegetation along the southern property boundary.

- Section 10.92.6.2 of the UDO, Parking and Drive Aisle Setbacks, requires that where off-street parking is provided between the building and the street right-of-way line, a parking lot buffer of at least ten (10) feet in width shall be provided between the parking lot and the street right-of-way. A compliant buffer has been proposed along the northern property boundary, adjacent to W. Seachase Drive, and along the eastern property boundary adjacent to US Hwy 158. Note that this includes preserving and maintaining existing mature vegetation in these areas.

- Section 10.93.3.5 of the UDO, Buildings Adjacent to Street Frontage, states that building walls adjacent to a street frontage shall include foundation landscaping directly adjacent to the building to screen any crawl space, stem wall, lattice work, or open parking areas. The applicant proposed landscaping along the building foundation adjacent to US Hwy 158 and W. Seachase Drive and is therefore compliant.

- Section 10.93.3.7 of the UDO, Interior Parking Lot Landscaping, requires parking lot landscaping be provided at a minimum rate equal to ten percent of the total area of the parking spaces. The applicant has proposed 25.4% of the total area of parking spaces in compliant landscaping. Therefore, interior parking lot landscaping is compliant.

- Section 10.93.3.8 of the UDO, Vegetation Preservation/Planting Requirements, requires that new development projects either preserve a minimum of ten (10) percent of the lot's total area with existing natural vegetation and/or dune elevations or plant new vegetation in lieu of preservation. When existing vegetation cannot be preserved, the planting of a minimum of fifteen (15) percent of the lot's total area shall be required. The applicant has proposed to preserve all the existing mature vegetation onsite, resulting in 11% of the total lot area, in addition to the proposed new

plantings. Therefore, vegetation preservation requirements are compliant.

Lighting: A lighting plan compliant with the requirements of Article 10, Part IV of the Unified Development Ordinance will be required prior to the issuance of any development permits. In addition, a light audit will be required prior to issuance of occupancy permits.

Signage: No additional signage is being proposed at this time.

Water and Sewage Disposal: The Village at Nags Head is served by a wastewater treatment facility. Carolina Water Service provides this service and has provided a letter stating they are able to serve the utility needs for this project as presented (attached).

Traffic Circulation: Traffic circulation has been reviewed and approved by the Town Engineer as presented, noting that an NCDOT right-of-way encroachment agreement will be required prior to issuance of the building permit.

Stormwater Management:Section 11.4.1 of the Unified Development Ordinance states, Redevelopment of property within existing commercial uses does not require submission of a stormwater plan under the following circumstances:

11.4.1.1. The development is consistent with the zoning regulations of this UDO relating to redevelopment and nonconformities;
11.4.1.2. The redevelopment does not result in a net gain of built upon area;
11.4.1.3. The redevelopment does not include the importation of any fill material.

Fire: The Deputy Fire Chief has reviewed and approved the proposed site plan as presented. The project will be required to comply with all applicable NC Fire Prevention Code requirements as part of the building permit application review and issuance.

Public Works: The Public Services Director has reviewed and approved the proposed site plan as presented.

Attachments

1. EMS Station Site Plan Attachments for PB

TOTAL PROPOSED SQUARE FOOTAGE ___ x .50 = $_____+

(Optional) VESTED RIGHT ☐ (no fee)

= TOTAL FEE DUE _____

TOWN OF NAGS HEAD

DATE RECEIVED _____

SITE PLAN REVIEW APPLICATION & CHECKLIST

1. **LOCATION AND ZONING INFORMATION**

   A. PROJECT TITLE DARE COUNTY EMS STATION NO. 5

   B. STREET ADDRESS 105 WEST SEACHASE DRIVE

   C. SUBDIVISION LOT 2A, WEST SIDE COMMERCIAL

   LOT(S) 2A BLOCK _____ SECTION _____

   D. PRESENT ZONING SPDC-V1

   E. PRESENT USE COMMERCIAL (BANKS)

   F. EXISTING NONCONFORMITIES NONE KNOWN

   G. ABUTTING PROPERTY ZONING WEST - SPDC-V1 (RETAIL) SOUTH - SPDC-INST

   H. ABUTTING PROPERTY USE RETAIL ON WEST, MUNICIPAL COMPLEX SOUTH

2. **CERTIFICATION AND STANDING**

   A. As applicant of standing of the above-named project, I certify that the information on this checklist and the site plan is complete and accurate.

   Timothy D Oakley

   OWNER ☐ AGENT ☒ CONTRACT ☐
   PURCHASER ☐

   B. APPLICANT/DEVELOPER: NAME Timothy Oakley, Oakley Collier Architects
   ADDRESS 109 Candlewood Rd
   Rocky Mount, NC 27804
   TELEPHONE 252-937-2500

   C. CONTACTPERSON: NAME Timothy Oakley, Oakley Collier Architects
   ADDRESS 109 Candlewood Rd
   Rocky Mount, NC 27804
   TELEPHONE 252-937-2500

3. **ADJACENT OWNERSHIP INFORMATION (TO BE SHOWN ON SITE PLAN)**

   NAME/ADDRESS (N) _____

   NAME/ADDRESS (S) TOWN OF NAGS HEAD

   NAME/ADDRESS (E) _____

   NAME/ADDRESS (W) MICHAEL H. YORK and SHAWN A. YORK

   (If additional space is needed, please attach separate sheets.)

4. SITE PLAN AND SITE PLAN ATTACHMENT DATA

A. Site plan preparer MICHAEL W. ROBINSON P.E., P.L.S. Phone# 252-255-8026

NC Registered ☒ Engineer ☐ Architect ☒ Surveyor. License# NC 18994

B. The design for the attached Stormwater Management Plan includes: N/A

☐ 1.5", 2-hour rainfall: retained on-site.

☐ 4.3", 2-hour rainfall: no important access or health-related impacts.

☐ 5.0", 2-hour rainfall: no unapproved impacts.

Drainage calculations have been prepared ☐ YES ☒ NO ATTACHED ☐ YES ☒ NO

Note: Stormwater Management Plan MUST be approved by the Town Engineer prior to Planning Board review for all listed permitted uses in the zoning ordinance.

C. Sewage disposal approval is being submitted in the form of:

☒ Attached tentative approval letter dated PENDING FROM CAROLINA WATER

☐ Attached final permit dated _____

☐ State ☐ County

D. Project involves condominium ownership.

☒ NO ☐ YES, Three copies of condominium documents attached.

E. Amount of land-disturbing activity proposed 35,000 +/- square feet.

A Soil Erosion and Sedimentation Control Plan has been prepared.

☒ NO ☐ YES; (1) Copy attached,
(2) Copy submitted to Dare County Soil Conservation Service, Manteo NC 27954.

F. Coastal Area Management Act (CAMA) permit. ☐ YES ☒ NO

5. INFORMATION TO BE SHOWN ON SITE PLAN

Twelve (12) copies for Planning Board review

A. **Property and ownership**	YES	COMMENTS
1. Present recorded owner and map book/cabinet reference of the site property.	X	
2. Current PIN Number.	X	
3. Site Address.	X	
4. Owners' names, lot numbers or map book and page reference of all adjacent property owners.	X	
5. Boundary of the entire parcel by course and distance.	X	
6. Widths of the existing rights-of-way that abut the site.	X	
7. Nature or purpose, location and size of existing easements.	X	
8. At all lot comers, points of tangents and any angle point along a given course of the site, iron pins minimum 3/8-inch diameter or 4x4-inch concrete monuments.	X	
9. Plan to at least 1"=50' scale, showing north arrow and whether true or magnetic.	X	
10. Signature and seal of preparer.	X	
B. Existing features		
1. Streets, curbs, and sidewalks with type and width of pavement.	X	
2. Topographic features of site and existing grades for any streets, storm drainage system including existing grades at four comers of all structures.	X	

	YES	COMMENT
3. Flood zone(s) as determined by latest FEMA Flood Insurance Rate Map, with notation, "flood zone subject to change by FEMA."	X	
4. All underground utilities and facilities including gasoline tanks and existing septic facilities (including tanks and fields).	X	SOME VERIFICATION REQUIRED
5. If the lot is within an ocean hazard Area of Environmental Concern, the location of the first line of stable natural vegetation, the CAMA setback line, and contour lines at 2-foot intervals depicting any dunes located within an oceanfront AEC that are to be disturbed by construction.	N/A	
6. The location of any marsh areas or estuarine waters or US Army Corps of Engineers 404 wetlands within or abutting the lot.	N/A	
7. If the lot is within the small surface water supply watershed AEC (within 1,200 feet from the Fresh Water Pond), the distance between the pond and proposed septic or sewage treatment system.	N/A	
8. Percentage of site to be included in calculation for undisturbed vegetation preservation compliance in Article 10, Part I of the Unified Development Ordinance.	X	15% REQ 7,397 ft2
C. **Site improvements** in accordance with regulations of state of North Carolina, Dare County, and Town of Nags Head		
1. Proposed building type (e.g., concrete or frame), number of floors and dimensions.	X	
2. Proposed building elevations of all sides of building labeled in accordance with proposed architectural design criteria of Article 10, Part VI of the UDO.	X	
3. Total height and number of stories of proposed structure(s). If increased height is being proposed in conjunction with increased setbacks, show increase allowed in tabular form on plan. Note definition of height in Appendix A of the Unified Development Ordinance.	X	
4. Existing and proposed ground elevations at the corners of proposed structure(s).	X	
5. Sanitary sewer facilities with connection to sewer system or septic tank.	X	
6. Approximate locations of proposed underground utilities and any necessary easements.	X	
7. Screened dumpster pad(s) accessible to left-side loaders and sized in accordance with the Town Code of Ordinances.	X	
8. Proposed fire hydrants and extensions of water distribution lines.	X	
9. Location and height of proposed free-standing signs. See requirements of Article 10, Part III of the Unified Development Ordinance.	N/A	
10. Location of all sidewalks, curbs, drives, and parking within the site and proposed finished elevations.	X	
11. Handicapped parking spaces, walks, ramps, and entrances in accordance with the NC State Building Code. Handicapped parking spaces to be 13 feet wide, marked with a free-standing handicapped sign.	X	
12. The Vegetative Buffer Yard areas have been identified and the proper buffer yard provision(s) have been identified as outlined in the Unified Development Ordinance.	X	
13. Layout of numbered stalls/loading zones in accordance with Article 10, Part II of the Unified Development Ordinance.	X	

Commercial ☐ Residential ☐	Parking Spaces Required	Parking Spaces Shown	Loading Spaces
1 STORIES BUILDING SQUARE FOOTAGE: PRINCIPAL 8,405 ACCESSORY _____ TOTAL 8,405	REFER TO PLAN FOR PARKING REQUIREMENTS	24	
# EMPLOYEES 5			
#DWELLING/LODGING UNITS 6 CREW QUARTERS			

D. **EXPLANATORY NOTES**

1. Vicinity map.
2. Total square feet of land area to undergo land-disturbing activity.
3. The total required parking spaces versus the total parking spaces provided. Parking spaces to be numbered.
4. Cross-section details of all streets, roads, ditches, and parking lot improvements.
5. The number of dwelling/commercial units. If more than one use is proposed (e.g., large hotel with shops, etc.), show breakdown of units or square footage by building.
6. If additional height above 35 feet is being proposed, the additional height and increased setbacks shall be laid out in tabular form.
7. Total site coverage calculations. (Refer to UDO to calculate lot coverage for lots abutting ocean or sound).
8. Components of the lighting plan (pole location, pole height, type of fixture, wattage, source of illumination, etc.). See Article 10, Part IV of the Unified Development Ordinance.
9. A completed architectural points worksheet for commercial structures subject to residential design criteria.

6. **PLAN AND ATTACHMENT PREPARER CERTIFICATION**

A. I certify that all information for which I am responsible is complete and accurate.

11-04-24
DATE

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER HOWARD W. ROBINSON

SIGNATURE OF ENGINEER ☐ ARCHITECT ☐ SURVEYOR ☐

B. The following individuals have contributed information or attachments to the plan:

Name	Phone#	Information Provided
OAKLEY COLLIER ARCHITECTS	252-937-2500	SKETCH PLAN, BUILDING

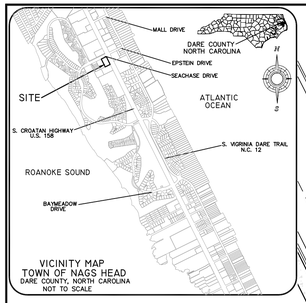
Site Specific Development Plan Option - Vested Right for Site Plans

Please be advised that as the owner, or agent for the owner, you have the opportunity to apply for and receive a Site-Specific Development Plan that will establish a Vested Right for this project for a period of time not to exceed two (2) years from the date the Board of Commissioners approves the plan. You must secure a building permit for this project within two (2) years of the approval date, or your Site-Specific Development Plan will expire. If you elect not to apply for a Site-Specific Development Plan, you must secure a building permit within six (6) months or else your site plan will expire.

If you choose the Site-Specific Development Plan option, please keep in mind the following concerns:

1. Although your project may be classified as a permitted use, by requesting a Site-Specific Development Plan your project will be processed as a Special Use for which a public hearing will be held, and an additional fee of $200.00 will be charged to process your application.
2. Once your Site-Specific Development Plan has been approved with vested rights status no modifications can be made to the plan.

If you wish to take advantage of the Vested Right process, please check off the Vested Right box on page one. If you do not, then leave the box blank.



VICINITY MAP
TOWN OF NAGS HEAD
DARE COUNTY, NORTH CAROLINA
NOT TO SCALE

NOTES AND DEVELOPMENT DATA:

1. Current Owner: The Town of Nags Head
   P.O. Box 99, Nags Head, NC 27959

2. Site Engineer: Michael W. Robinson P.E., P.L.S.
   P.O. Box 2852, Kill Devil Hills, NC 27948
   252-255-8026 mrobinson@obxengineering.com

3. Subject Parcel:
   Lot 2A, West Side Commercial Site
   Street Address: 105 West Seachase Drive, Nags Head 27959
   Reference: P.C. D Sl. 72, D. B. 2575 Pg. 0006
   PIN 0801 17 22 1177 Parcel 031038001

4. Parcel Area = 49,314 sq.ft.

5. FEMA Data:
   Map Number: 3730080100K, Effective Date: 6/19/2020
   Flood Zone X – Base Flood Elevation – n/a
   Flood Zones subject to change by FEMA.

   Regulatory flood protection elevation: Properties west of NC 12 and SR 1243 – The RFPE for properties located west of NC 12 and SR 1243 and in flood zones Shaded X, X, or AE, is 9 feet NAVD 1988. Reference Level – The reference level is the bottom of the lowest floor or the bottom of the lowest attendant utility including ductwork, whichever is lower, with only flood resistant materials located below the reference level west of NC 12 and SR 1243.

6. Zoning: SPDC–V1 (Special Planned Develop.–Village Commercial 1)

7. Special Notice: Town Staff has proposed several text amendments to facilitate the construction of the EMS Station within the SPD–C, Village Commercial–1 Zoning Designation.
   These include:
   - Amend Section 9.36, Table of Uses and Activities to list "County EMS Station" as a permitted use within the Village Commecial–1 District.
   - Amend Section 9.21.8.2, Table of Development Standards, to reduce the front yard setback requirement from 75 feet to 45 feet.
   - Amend Section 10.16, Required Parking by Use, to establish a parking standard for the new use category of "County EMS Station".

8. District Development Standards:
   Minimum Front Yard (U.S. 158) – 45' (Pending approval)
   Minimum Street Side Yard (Seachase Drive) – 15'
   Minimum Side Yard – None
   Minimum Rear Yard (West Property Line) – 5' from the rear side of a building and the adjacent parking area.
   Maximum Building Height: 35 feet
   Maximum Lot Coverage: 80%

9. Proposed Use: New 8,305 sq.ft. Dare County Emergency Management Services Building on a 1.13 ac. parcel located at the South West Corner of Seachase Drive and U.S. 158 (Croatan Highway).

10. Minimum Parking Requirements:
    Use Category/Class– EMS facilities
    Required Parking: (Proposed)
    - One parking space per employee on duty
      (12 employees at 1 space per employee = 12 spaces)
      (12 employees is the maximum during a shift change)
    - One Parking Space per 200 sq.ft. of training area
      (Training area =n/a)
    - One Parking Space per 200 sq.ft. of customer service area
      (Customer service area =104 sq.ft. = 1 space)

    Required Parking Spaces = 13
    Parking Spaces Provided = 22

11. Lot Coverage calculations:
    Parcel Area = 49,314 sq.ft.
    Curent Lot Coverage = 34,388 sq.ft. (from referenced survey)
    Proposed Coverage:
    Building Footprint = 8,305 sq.ft.
    Concrete Curbing = 1,514 sq.ft.
    Concrete or Asphalt Pavement = 10,255 sq.ft.
    Permeable Pavers (adjusted area) = 2,299 sq.ft.
    (Actual area = 3,432 sq. ft. x 0.67 = 2,299 sq.ft.)
    Concrete Sidewalks = 1,700 sq.ft.
    Concrete Dumpster Pad = 100 sq.ft.
    Concrete Generator Pad = 387 sq.ft.
    Concrete LP Pad = 120 sq.ft.
    Future Development = 3,257 sq.ft.

    Total Lot Coverage = 27,937 sq.ft.
    % Lot Coverage = 56.7

12. Survey Data from a survey by Sea Level Consulting, Inc., William G. Yetser P.L.S., 5215 Sycamore Lane, Kitty Hawk, NC 27949. The plat is titled "Dare County, Lot 2A, West Side Commercial Site", dated September 24, 2024 with Project number 074–2024.

13. A lighting plan consistent with Section 10.37.1 of the UDO will be required prior to issuance of building permits for the proposed use.

PRELIMINARY PLAN
GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

EXISTING HYDRANT
ZONING: SPDC-VC1
Existing 12" water line (location approximate)
POINT OF WAY
EDGE OF ASPHALT
SEACHASE DRIVE
100' R/W WIDTH
(PUBLIC ASPHALT ROADWAY)
Low level landscaping 18" or less
Sign Type 3 See Detail Sheet 3
MODIFY LANDSCAPE ISLAND
Remove existing landscaping and curbing
Install new curbs to match existing
Pave new cross over with standard asphalt paving
Existing 6" water line (location approximate)
CONCRETE SIDEWALK
POINT OF BEG.
Found Masonry Nail
10' SIGHT DISTANCE
Exist Curb/Gutter
Sign Type 2 See Detail Sheet
CONCRETE DUMPSTER PAD WITH 6' HIGH SCREEN
See Detail Sheet 3
Sign Type 1 See Detail Sheet 3
Sign Type 2 See Detail Sheet 3
EXISTING HYDRANT
DARE COUNTY EMS STATION 5
One story metal building on concrete slab.
Building pad existing elevation = 12' to 13' +/–
Concrete slab elevation = 13.2' +/–
(Subject to final grading)
Ground floor building area = 8,305 sq.ft.
Existing SS Cleanout
Possible Location of 6" Sanitary Sewer Drainline. Field Verification needed.
Existing SS Cleanout
LOT 2B
WEST SIDE COMMERCIAL SITE
(PC D, SL 72)
NOW OR FORMERLY
MICHAEL H. YORK
SHAWN A. YORK
111 SEACHASE DRIVE
NAGS HEAD, NC 27959
USE: RETAIL
ZONING: SPDC-VC1
SUBJECT PROPERTY
LOT 2A
WEST SIDE COMMERCIAL SITE
(PC D, SL 72)
ZONING: SPDC-VC1
NEW GENERATOR ON CONCRETE PAD WITH ENCLOSURE
NEW PROPANE TANK ON CONCRETE SLAB
25' ACCESS EASEMENT
14' DRAINAGE AND UTILITY EASEMENT
12' DRAINAGE ACCESS AND UTILITY EASEMENT
10' DRAINAGE AND UTILITY EASEMENT
N63°32'23"E 178.00'
S63°32'23"W 178.00'
N63°32'23"E 264.18'
S63°32'23"W 264.18'
N26°27'37"W 176.00'
S26°27'37"E 176.00'
Found Iron Rod 0.44' from corner
Found Iron Rod 0.50' from corner
Existing Monitor Well Do not Disturb
Found Iron Rod
PROPERTY LINE
EX. TRAFFIC SIGNAL
TRAVEL WAY (TYP.)
SINGLE FLOW LINE
CROWN OF ROAD
SOUTH CROATAN HIGHWAY
US ROUTE 158
(PUBLIC ASPHALT ROADWAY)
45' U.S. 158 SETBACK
5' Concrete sidewalk
Concrete Patio
Concrete Parking Stop (Typ)
Proposed FDC 6" 90° Bend
FIRE LANE - NO PARKING
ASPHALT OR CONCRETE PAVING
Curb Section A–A
New Curb/Gutter
Future Pavement Addition
Sign Type 1 See Detail Sheet 3
Proposed 6"x 12" tapping sleeve and valve
Proposed x" Domestic Service top and meter
45°-90° Bend
Proposed 6" C900 Water Line to RPZ in Riser Room
Proposed x" Domestic Service Line (Size to be determined by PME plans
45' FRONT SETBACK
FUTURE BAY ADDITION
Existing 12" water line (location approximate)
Existing 24" raw water line (location approximate)
LOT 1
NAGS HEAD MUNICIPAL COMPLEX
(PC C, SL 198)
NOW OR FORMERLY
TOWN OF NAGS HEAD
P.O. BOX 99
NAGS HEAD, NC 27959
USE: MUNICIPAL COMPLEX
ZONING: SPDC-INST

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON 11-12-24

MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
P.O. BOX 2852
KILL DEVIL HILLS, NC 27948
PHONE: 252-255-8026
EMAIL: mrobinson@obxengineering.com

SITE PLAN
PRELIMINARY

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJECT:
DARE COUNTY EMS STATION 5
NAGS HEAD DARE COUNTY NORTH CAROLINA
105 WEST SEACHASE DRIVE, NAGS HEAD

DATE: 11–12–24
SCALE: 1"=20'
DESIGNED: MWR
DRAWN: MWR
SHEET: 1 OF 5
CAD FILE:
PROJECT NO: 110424

PARKING LOT LANDSCAPE BUFFER

For all sites where off-street parking is provided between the building and the street right-of-way line, a buffer strip of at least ten (10) feet in width shall be provided between the parking lot and the street right-of-way line.
The parking lot buffer shall consist of one row of plant material with a minimum of 3 trees, 15 shrubs and 30 Ornamental Grasses/Herbaceous Plants per 100 feet of Buffer Yard Length.
Seachase Drive has a buffer length of 176 feet and will require a minimum of 6 trees, 27 shrubs and 53 Ornamental Grasses/Herbaceous Plants.
Refer to UDO Article 10.93.3.1 for minimal species height and additional data.

ZONING: SPDC-VCI

SEACHASE DRIVE
100' R/W WIDTH
(PUBLIC ASPHALT ROADWAY)

SILT FENCING

CONSTRUCTION ENTRANCE

New Flume with Rip Rap (typ)

MAINTAIN EXISTING LANDSCAPE BUFFER

10' DRAINAGE AND UTILITY EASEMENT

18" RCP
Inv = 8.8'

Existing Drop Inlet
Grate Elev. = 12.0'
Inv = 8.0'

Ex. 15" RCP

New Curb/Gutter

EXISTING HYDRANT

New Drop Inlet
Grate Elev. = xx
Invert out = xx
15" RCP

Existing Drop Inlet
to be removed
Grate Elev. = 12.2'
Inv = 8.5'

SILT FENCING

Existing SS Cleanout

Possible Location of 6" Sanitary Sewer Drainline. Field Verification needed.

Existing SS Cleanout

LOT 2B
WEST SIDE COMMERCIAL SITE
(PC D, SL 72)
NOW OR FORMERLY
MICHAEL H. YORK
P.O. BOX 1
111 SEACHASE DRIVE
NAGS HEAD, NC 27959
USE: RETAIL
ZONING: SPDC-VCI

SUBJECT PROPERTY
LOT 2A
WEST SIDE COMMERCIAL SITE
(PC D, SL 72)
ZONING: SPDC-VCI

WEST PROPERTY LINE PLANTED LANDSCAPE BUFFER

UDO section 9.21.7.14 requires a 5-foot wide planted landscape buffer along the west and south sides of the property, this vegetation shall reach a minimum height of 10 feet within 5 years.

15' DRAINAGE ACCESS AND UTILITY EASEMENT

20' ACCESS EASEMENT

14' DRAINAGE AND UTILITY EASEMENT

Existing SS Cleanout

Existing Monitor Well Do not Disturb

Found Iron Rod

Found Iron Rod
0.50' from corner

SOUTH PROPERTY LINE LANDSCAPE BUFFER

UDO section 9.21.7.14 requires a 5-foot wide planted landscape buffer along the west and south sides of the property, this vegetation shall reach a minimum height of 10 feet within 5 years.
Existing Vegetative Buffer appears to meet this requirement.

LOT 1
NAGS HEAD MUNICIPAL COMPLEX
(PC D, SL 190)
NOW OR FORMERLY
TOWN OF NAGS HEAD
P.O. BOX 99
NAGS HEAD, NC 27959
USE: MUNICIPAL COMPLEX
ZONING: SPDC-INST

MAINTAIN EXISTING LANDSCAPE BUFFER
Area = 3,606 sq.ft.

SILT FENCING

EXISTING HYDRANT

Proposed FDC
6" 90° Bend

Proposed 6" C900 Water Line to RP2 in Riser Room

Proposed x" Domestic Service Line (Size to be determined by PME plans)

Proposed 6"x 12" tapping sleeve and valve

Proposed x" Domestic Service tap and meter

Elliptical CMP Culvert
Inv.(NE) =3.4'
Inv.(SW) =2.7'

Existing 12" water line (location approximate)

Existing 24" raw water line (location approximate)

PARKING LOT LANDSCAPE BUFFER

For all sites where off-street parking is provided between the building and the street right-of-way line, a buffer strip of at least ten (10) feet in width shall be provided between the parking lot and the street right-of-way line.
The parking lot buffer shall consist of one row of plant material with a minimum of 3 trees, 15 shrubs and 30 Ornamental Grasses/Herbaceous Plants per 100 feet of Buffer Yard Length.
South Croatan Highway has a buffer length of 280 feet and will require a minimum of 9 trees, 42 shrubs and 84 Ornamental Grasses/Herbaceous Plants.
Refer to UDO Article 10.93.3.1 for minimal species height and additional data.

SILT FENCING

BUILDING LANDSCAPING ADJACENT TO STREET FRONTAGE

Building walls adjacent to a street frontage shall include foundation landscaping directly adjacent to the building to screen any crawl space, stem wall, lattice work, or open parking areas.
Refer to UDO Article 10.93.3.1 for minimal species height and additional data.

SOUTH CROATAN HIGHWAY
US ROUTE 158
(PUBLIC ASPHALT ROADWAY)
150' R/W WIDTH

Existing 30" RCP
Inv.(N) =4.9'
Inv.(S) =4.8'

10' DRAINAGE AND UTILITY EASEMENT

45' FRONT SETBACK

FIRE LANE - NO PARKING

LANDSCAPE AND BUFFER PLAN NOTES:

1. Section 10.92.14.4–20% of the surface area of parking area and drive aisles shall be constructed of permeable materials.
   Surface Area of Pavement and Curbing = 15,201 sq.ft.
   Permeable Paving Area = 3,432 sq.ft. (22.6% of Surface Area)
2. Section 10.93.3.7–Interior Parking Lot landscaping requires parking lot landscaping to be provided at a minimum rate equal to ten percent of the total area of the parking spaces
   Area of Parking Spaces = 2,620 sq.ft.
   Landscape Island Area total = 668 sq.ft. (25.4%)
   AREA = xxx sq.ft.
   Hatching Denotes Area Used for Interior Parking Lot Credits
   Total Area Depicted = 668 sq.ft.
3. Section 10.93.3.8 –Vegetation Preservation/Planting Requirements, requires that new development projects either preserve a minimum of ten (10) percent of the lot's total area with existing natural vegetation
   Total Lot Area = 49,314 sq.ft.
   Area of Preserved Vegetation = 5,500 sq.ft. (11%)
4. The property owner shall be responsible for maintaining the landscaped areas required by this section, including the replacement of dead and missing vegetation in accordance with section article 10, part I, buffering and vegetation preservation general requirements.
5. For parking lot buffers, clustering and/or random spacing of plants and trees is encouraged to produce a natural appearance in the landscape.
6. This plan is intended to depict the minimum plantings required under UDO section 10.93 landscaping, buffering, and vegetation preservation.
7. Prior to planting the landscaper shall provide a list of plantings proposed for installation including species and plant height. The plan will be provided to the Town for approval.
8. See Detail Sheet 4 for additional Sedimentation/Erosion Control Data and details.

PRELIMINARY PLAN
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON
11-12-24

MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
P.O. BOX 2852 27948
KILL DEVIL HILLS
PHONE: 252-255-8026
EMAIL: mrobinson@obxengineering.com

SEDIMENTATION-EC PLAN
LANDSCAPE /BUFFER PLAN
GRADING / DRAINAGE PLAN

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

REVISIONS

NO.	DATE	DESCRIPTION	BY

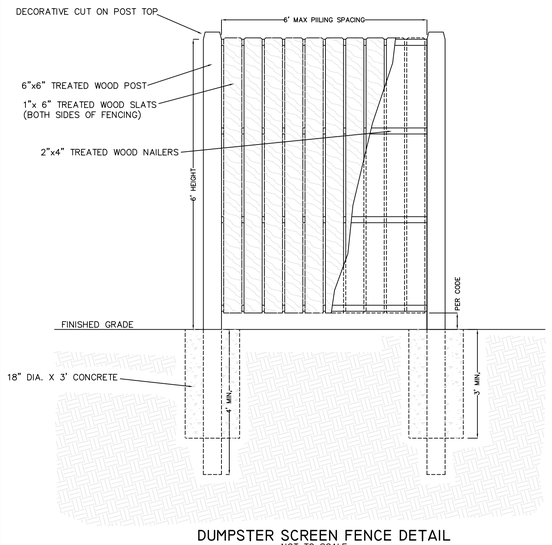
PROJECT:
DARE COUNTY EMS STATION 5
NAGS HEAD — DARE COUNTY — NORTH CAROLINA
105 WEST SEACHASE DRIVE, NAGS HEAD

DATE:	SCALE:
11-12-24	1"=20'
DESIGNED:	DRAWN:
MWR	MWR

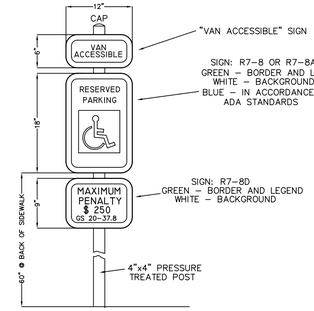
SHEET: 2 OF 5

CAD FILE:

PROJECT NO: 110424



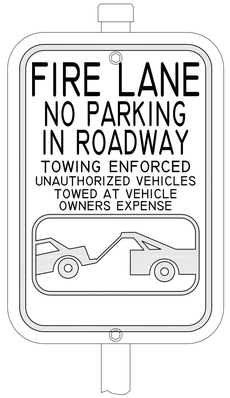
DUMPSTER SCREEN FENCE DETAIL
NOT TO SCALE



HANDICAP APARKING SIGNAGE



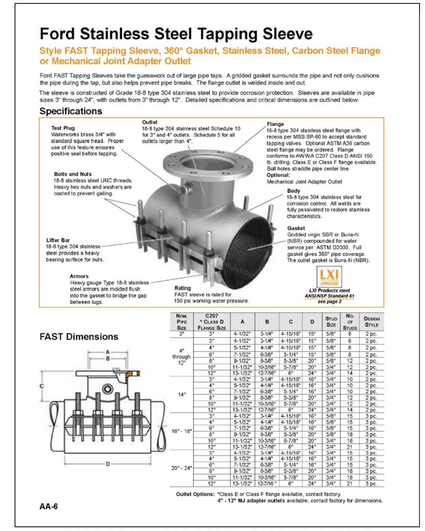
SIGN TYPE 1



SIGN TYPE 2



SIGN TYPE 3



Ford Stainless Steel Tapping Sleeve

Style FAST Tapping Sleeve, 360° Gasket, Stainless Steel, Carbon Steel Flange or Mechanical Joint Adapter Outlet

Ford FAST Tapping Sleeves take the guesswork out of large pipe taps. A gridded gasket surrounds the pipe and not only cushions the pipe during the tap, but also helps prevent pipe breaks. The flange outlet is welded inside and out.

The sleeve is constructed of Grade 18-8 type 304 stainless steel to provide corrosion protection. Sleeves are available in pipe sizes 3" through 24", with outlets from 3" through 12". Detailed specifications and critical dimensions are outlined below.

Specifications

Test Plug
Watermorks brass 3/4" with standard square head. Proper use of this feature ensures positive seal before tapping.

Bolts and Nuts
18-8 stainless steel UNC threads. Heavy hex nuts and washers are coated to prevent galling.

Lifter Bar
18-8 type 304 stainless steel provides a heavy bearing surface for nuts.

Armors
Heavy gauge Type 18-8 stainless steel armors are molded flush into the gasket to bridge the gap between lugs.

Outlet
18-8 type 304 stainless steel Schedule 10 for 3" and 4" outlets. Schedule 5 for all outlets larger than 4".

Flange
18-8 type 304 stainless steel flange with recess per MSS SP-60 to accept standard tapping valves. Optional ASTM A36 carbon steel flange may be ordered. Flange conforms to AWWA C207 Class D ANSI 150 lb. drilling. Class E or Class F flange available. Bolt holes straddle pipe center line.
Optional:
Mechanical Joint Adapter Outlet

Body
18-8 type 304 stainless steel for corrosion control. All welds are fully passivated to restore stainless characteristics.

Gasket
Gridded virgin SBR or Buna-N (NBR) compounded for water service per ASTM D2000. Full gasket gives 360° pipe coverage. The outlet gasket is Buna-N (NBR).

Rating
FAST sleeve is rated for 150 psi working water pressure.

LXI
LXI Products meet ANSI/NSF Standard 61 see page 2

FAST Dimensions

Nom. Pipe Size	C207 "D" Class D Flange Size	A	B	C	D	Stud Size	No. of Studs	Design Style
3"		6-1/2"	3-1/4"	4-15/16"	15"	5/8"	8	2 pc.
4" through 12"	3"	6-1/2"	3-1/4"	4-15/16"	15"	5/8"	8	2 pc.
	4"	6-1/2"	3-1/4"	4-15/16"	15"	5/8"	8	2 pc.
	6"	7-1/2"	6-3/8"	5-1/4"	15"	5/8"	8	2 pc.
	8"	9-1/2"	8-3/8"	5-3/8"	20"	5/8"	12	2 pc.
	10"	11-1/2"	10-3/8"	5-7/8"	20"	3/4"	12	2 pc.
	12"	13-1/2"	12-7/16"	6"	24"	3/4"	14	2 pc.
14"	3"	6-1/2"	3-1/4"	4-15/16"	16"	3/4"	10	2 pc.
	4"	6-1/2"	4-1/4"	4-15/16"	16"	3/4"	10	2 pc.
	6"	7-1/2"	6-3/8"	5-1/4"	16"	3/4"	10	2 pc.
	8"	9-1/2"	8-3/8"	5-3/8"	20"	3/4"	12	2 pc.
	10"	11-1/2"	10-3/8"	5-7/8"	20"	3/4"	12	2 pc.
	12"	13-1/2"	12-7/16"	6"	24"	3/4"	14	2 pc.
16" - 18"	3"	6-1/2"	3-1/4"	4-15/16"	16"	3/4"	15	3 pc.
	4"	6-1/2"	4-1/4"	4-15/16"	16"	3/4"	15	3 pc.
	6"	7-1/2"	6-3/8"	5-1/4"	16"	3/4"	15	3 pc.
	8"	9-1/2"	8-3/8"	5-3/8"	20"	3/4"	18	3 pc.
	10"	11-1/2"	10-3/8"	5-7/8"	20"	3/4"	18	3 pc.
	12"	13-1/2"	12-7/16"	6"	24"	3/4"	21	3 pc.
20" - 24"	3"	6-1/2"	3-1/4"	4-15/16"	16"	3/4"	15	3 pc.
	4"	6-1/2"	4-1/4"	4-15/16"	16"	3/4"	15	3 pc.
	6"	7-1/2"	6-3/8"	5-1/4"	16"	3/4"	15	3 pc.
	8"	9-1/2"	8-3/8"	5-3/8"	20"	3/4"	18	3 pc.
	10"	11-1/2"	10-3/8"	5-7/8"	20"	3/4"	18	3 pc.
	12"	13-1/2"	12-7/16"	6"	24"	3/4"	21	3 pc.

Outlet Options: *Class E or Class F flange available, contact factory.
4" - 12" MJ adapter outlets available, contact factory for dimensions.

AA-6

FORD STAINLESS STEEL TAPPING SLEEVE

ALL WATER LINE MATERIALS, INSTALLATION, TESTING AND DISINFECTION SHALL COMPLY WITH THE TOWN OF NAGS HEAD STANDARD SPECIFICATIONS. SUBMITTALS REQUIRED FOR ALL MATERIALS WITH WRITTEN APPROVAL BY ENGINEER AND TOWN OF NAGS HEAD IS REQUIRED

NOTE REGARDING SERVICE LINE AND METER SIZING

The Architect shall provide provide the water meter sizing form for each of the facility to determine if the current service is adequately sized for the project.

Relation of Water Mains to Sewers

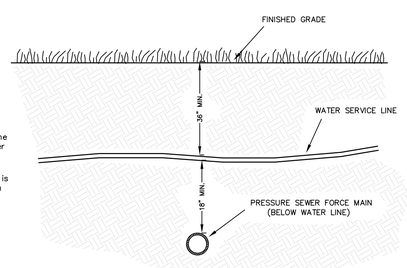
(a) Lateral Separation of Sewers and Water Mains. Water mains shall be laid at least 10 feet laterally from existing or proposed sewers, unless local conditions or barriers prevent a 10-foot lateral separation--in which case:

(1) The water main is laid in a separate trench, with the elevation of the bottom of the water main at least 18 inches above the top of the sewer; or

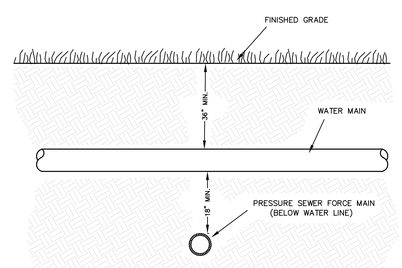
(2) The water main is laid in the same trench as the sewer with the water main located at one side on a bench of undisturbed earth, and with the elevation of the bottom of the water main at least 18 inches above the top of the sewer.

(b) Crossing a Water Main Over a Sewer. Whenever it is necessary for a water main to cross over a sewer, the water main shall be laid at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer, unless local conditions or barriers prevent an 18 inch vertical separation--in which case both the water main and sewer shall be constructed of ferrous materials and with joints that are equivalent to water main standards for a distance of 10 feet on each side of the point of crossing.

(c) Crossing a Water Main Under a Sewer. Whenever it is necessary for a water main to cross under a sewer, both the water main and sewer shall be constructed of ferrous materials and with joints equivalent to water main standards for a distance of 10 feet on each side of the point of crossing. A section of water main pipe shall be centered at the point of crossing.



WATER SERVICE / SEWER FORCE MAIN CROSSING DETAIL
NOT TO SCALE



WATER MAIN / SEWER FORCE MAIN CROSSING DETAIL
NOT TO SCALE

MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
P.O. BOX 2852
KILL DEVIL HILLS, NC 27948
PHONE: 252-255-8026
EMAIL: mrobinson@obxengineering.com

DETAIL SHEET
PRELIMINARY

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

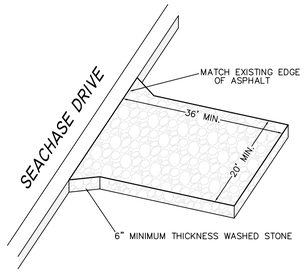
NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON 11-12-24

REVISIONS

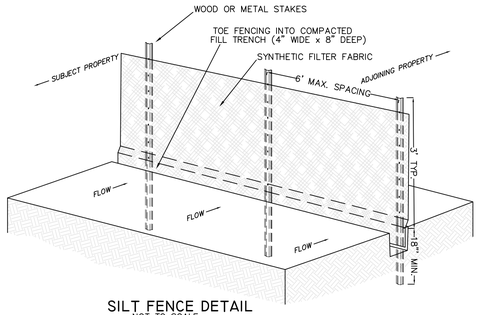
NO.	DATE	DESCRIPTION	BY

PROJECT:
DARE COUNTY EMS STATION 5
NAGS HEAD — DARE COUNTY — NORTH CAROLINA
105 WEST SEACHASE DRIVE, NAGS HEAD

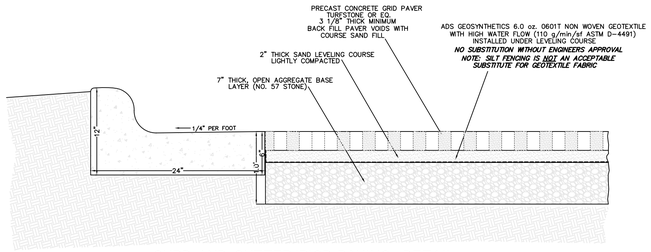
DATE: 11-12-24
SCALE: 1"=20'
DESIGNED: MWR
DRAWN: MWR
SHEET: 3 OF 5
CAD FILE:
PROJECT NO: 110424



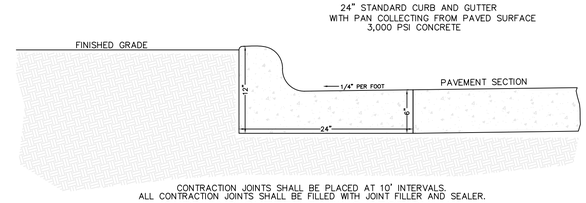
GRAVEL CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



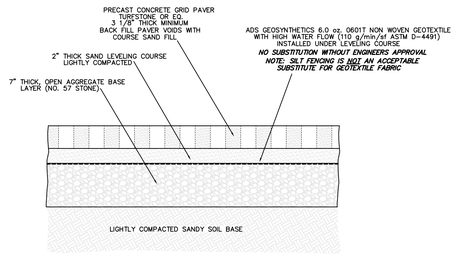
SILT FENCE DETAIL
NOT TO SCALE



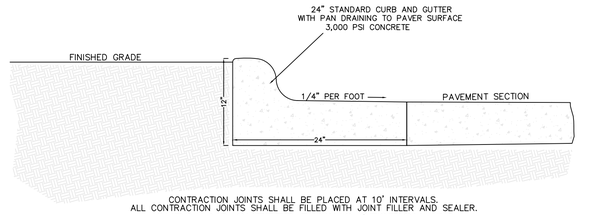
CURB AND GUTTER/PICP PAVING DETAIL
NOT TO SCALE



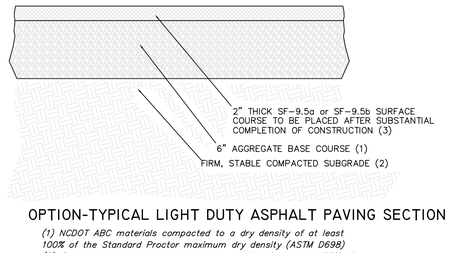
CONTRACTION JOINTS SHALL BE PLACED AT 10' INTERVALS.
ALL CONTRACTION JOINTS SHALL BE FILLED WITH JOINT FILLER AND SEALER.
CURB AND GUTTER PAVING SECTION AA
NOT TO SCALE



TURFSTONE/PICP PAVING DETAIL
NOT TO SCALE



CONTRACTION JOINTS SHALL BE PLACED AT 10' INTERVALS.
ALL CONTRACTION JOINTS SHALL BE FILLED WITH JOINT FILLER AND SEALER.
CURB AND GUTTER PAVING SECTION BB
NOT TO SCALE



OPTION-TYPICAL LIGHT DUTY ASPHALT PAVING SECTION

(1) NCDOT ABC materials compacted to a dry density of at least 100% of the Standard Proctor maximum dry density (ASTM D698)
(2) Subgrade soils compacted to a dry density of at least 100% of the Standard Proctor maximum dry density (ASTM D698)
(3) Optional, surface course may be placed with original intermediate paving

PERMANENT VEGETATION

SEEDING DATES: APRIL 1– SEPT 30

SEED MIXTURE	APPLICATION RATES/ACRE
BAHIA	50 LBS.
COMMON BERMUDA (UNHULLED)	50 LBS.
GERMAN MILLETT	15 LBS.
FESCUE	20 LBS.
FERTILIZER 26–13–13 @ 500 LB/ACRE	
MULCH APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	

TEMPORARY VEGETATION

SEEDING DATES: OCT. 1 – MARCH 31

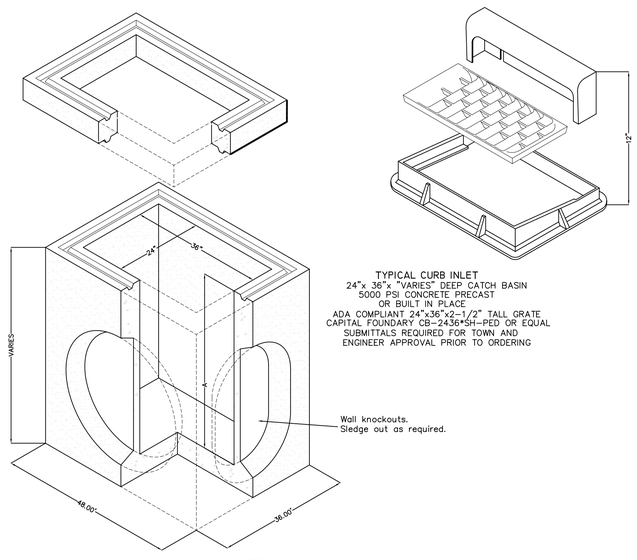
SEED MIXTURE	APPLICATION RATES/ACRE
RYE GRAIN	175 LBS.
FERTILIZER 10–10–10 @ 1000 LB/ACRE	
MULCH APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	

GENERAL: FERTILIZER RATES SHOWN ARE GENERAL RECOMMENDATIONS; FREQUENCY AND AMOUNT OF FERTILIZATION CAN BEST BE DETERMINED THROUGH SITE SPECIFIC SOIL TESTING.
MAINTENANCE: SATISFACTORY STABILIZATION AND EROSION CONTROL REQUIRES A COMPLETE VEGETATIVE COVER. EVEN SMALL BREACHES IN VEGETATIVE COVER CAN EXPAND RAPIDLY AND, IF LEFT UNATTENDED, CAN ALLOW SERIOUS SOIL LOSS FROM AN OTHERWISE STABLE SURFACE. A SINGLE HEAVY RAIN IS OFTEN SUFFICIENT TO GREATLY ENLARGE BARESPOTS, AND THE LONGER REPAIRS ARE DELAYED, THE MORE COSTLY THEY BECOME. PROMPT ACTION WILL KEEP SEDIMENT LOSS AND REPAIR COST DOWN.
NEW SEEDLINGS SHOULD BE INSPECTED FREQUENTLY AND MAINTENANCE PERFORMED AS NEEDED. IF RILLS AND GULLIES DEVELOP, THEY MUST BE FILLED IN, RE–SEEDED,AND MULCHED AS SOON AS POSSIBLE. DIVERSIONS MAY BE NEEDED UNTIL NEW PLANTS TAKE HOLD.
MAINTENANCE REQUIREMENTS EXTEND BEYOND THE SEEDING PHASE.
WEAK OR DAMAGED SPOTS MUST BE RELIMED, FERTILIZED, MULCHED, AND RESEEDED AS PROMPTLY AS POSSIBLE. REFERTILIZATION MAY BE NEEDED TO MAINTAIN PRODUCTIVE STANDS.

SEEDING SPECIFICATIONS

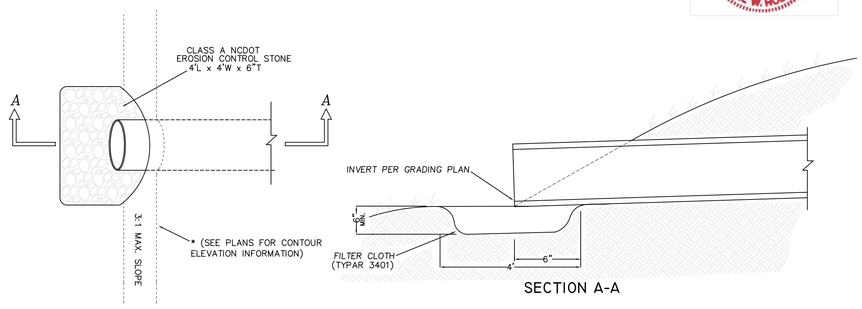
SOIL EROSION & SEDIMENTATION CONTROL PLAN NOTES:

1. SOIL EROSION & SEDIMENT CONTROL PLAN NOTES;
   a.) AREA TO BE DISTURBED: ±35,000 sq.ft. – ± 0.83 ac.
   b.) PROVIDE A GROUNDCOVER (TEMPORARY OR PERMANENT) ON ALL SLOPES 3:1 OR STEEPER WITHIN 7 CALENDAR DAYS AND ALL SLOPES FLATTER THAN 3:1 WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PROVIDE A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
   c.) IF LAND DISTURBING ACTIVITIES OCCUR OUTSIDE THE PERMANENT VEGETATION SEEDING DATES (APR. 1– SEP.30) THEN TEMPORARY VEGETATION SEEDING SPECIFICATIONS SHALL BE FOLLOWED FOR PLANTING UNTIL THE NEXT APPROPRIATE PERMANENT SEEDING PERIOD, AT WHICH TIME PERMANENT VEGETATION SHALL BE ESTABLISHED ACCORDING TO PERMANENT VEGETATION SEEDING SPECIFICATIONS (SEE PERM. & TEMP. SEEDING SPECIFICATIONS ONSHEET ES2).
   d.) IF EXCESSIVE WIND EROSION OR STORMWATER RUNOFF EROSION DEVELOPS DURING TIME OF CONSTRUCTION ANY LOCATION ON THE PROJECT SITE, ADDITIONAL SILT FENCING OR OTHER MEASURES SHALL BE INSTALLED AS DIRECTED BY ENGINEER SO AS TO PREVENT DAMAGE TO ADJACENT PROPERTY. SEE SILT FENCE DETAIL ON THIS SHEET.
   e.) SOIL EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSPECTED WEEKLY AND AFTER ANY SIGNIFICANT RAINFALL PRODUCING EVENT AND SHALL BE MAINTAINED AND REPAIRED AS NECESSARY UNTIL PERMANENT CONTROLS ARE ESTABLISHED.
   f.) CONSTRUCTION SCHEDULE:
      1) OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS. NO WORK SHALL BE PERFORMED IN WETLAND AREAS PRIOR TO ISSUANCE OF ALL APPLICABLE USACE PERMITS.
      2) FLAG AND/OR ROUGH STAKE WORK LIMITS.
      3) HOLD PRECONSTRUCTION CONFERENCE (OWNER, CONTRACTOR, ENGINEER, AND APPROPRIATE GOVERNMENT OFFICIALS) AT LEAST ONE WEEK PRIOR TO START OF CONSTRUCTION ACTIVITIES.
      4) INSTALL SILT FENCING AND ORANGE CONSTRUCTION FENCING @ LOCATIONS SHOWN ON PLAN
      5) COMPLETE CLEARING AND GRUBBING PROCEDURES.
      6) GRADE SITE ACCORDING TO PLAN
      7) INSTALL INFILTRATION BASINS AND STORM SEWER. DROP INLETS TO BE PROTECTED WITH INLET PROTECTION UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. PIPE ENDS AT INFILTRATION BASINS SHALL BE PROTECTED WITH OUTLET PROTECTION.
      8) INSTALL PERMEABLE PAVEMENT GRAVEL BASE. BASE LAYER TO BE PROTECTED FROM SEDIMENT AT ALL TIMES. CONSTRUCTION TRAFFIC TO BE RESTRICTED TO SPECIFIC AREAS WITHIN THE BASE (STAGING / WORK AREA TO BE DEFINED BY CONTRACTOR AND CLEARLY DEMARCATED UTILIZING BARRIERS/CONES/TAPE). ONCE HEAVY BUILDING CONSTRUCTION IS COMPLETE, STAGING / WORK AREA BASE MATERIAL WILL BE INSPECTED BY ENGINEER AND IF FOUND TO BE DEGRADED, IT SHALL BE REMEDIATED AT THE EXPENSE OF THE CONTRACTOR. INSTALLATION OF PERMEABLE CONCRETE PAVEMENT SHALL NOT TAKE PLACE UNTIL ALL EARTHWORK ACTIVITIES AND ALL HEAVY BUILDING CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. INSTALLED PERMEABLE CONCRETE SHALL BE PROTECTED FROM SEDIMENT AND FROM HEAVY CONSTRUCTION EQUIPMENT AT ALL TIMES.
      9) ALL EROSION & SEDIMENTATION CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER HEAVY RAINFALL EVENTS. NEEDED REPAIRS WILL BE MADE IMMEDIATELY.
      10) ONCE SITE IS FULLY STABILIZED; REMOVE INLET AND OUTLET PROTECTION, CLEAN STORM SEWER OF ANY SEDIMENT, FINE–GRADE AND SEED OR LANDCSCAPE INFILTRATION BASINS.



CURB INLET BOX DETAIL
NOT TO SCALE

TYPICAL CURB INLET
24"x 36"x "VARIES" DEEP CATCH BASIN
5000 PSI CONCRETE PRECAST
OR BUILT IN PLACE
ADA COMPLIANT 24"x36"x2–1/2" TALL GRATE
CAPITAL FOUNDARY CB–2436*SH–PED OR EQUAL
SUBMITTALS REQUIRED FOR TOWN AND
ENGINEER APPROVAL PRIOR TO ORDERING



PLAN VIEW

SECTION A-A

STORM PIPE OUTLET DETAIL
(APPLIES TO ALL PROPOSED STORM PIPE OUTLETS)
NOT TO SCALE



MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
KILL DEVIL HILLS, NC 27948
P.O. BOX 2852
PHONE: 252-255-8026
EMAIL: mrobinson@obxengineering.com

DETAIL SHEET
PRELIMINARY

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

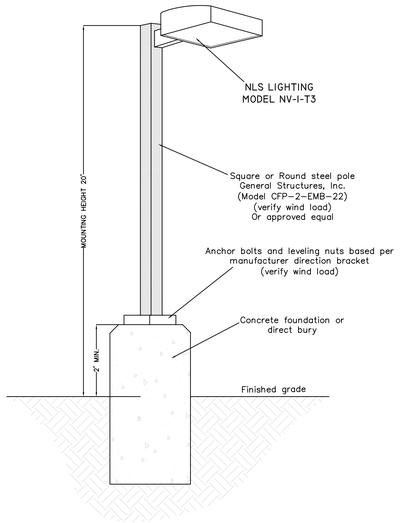
REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJECT:
DARE COUNTY EMS STATION 5
NAGS HEAD — DARE COUNTY — NORTH CAROLINA
105 WEST SEACHASE DRIVE, NAGS HEAD

DATE: 11–12–24
SCALE: 1"=20'
DESIGNED: MWR
DRAWN: MWR
SHEET: 4 OF 5
CAD FILE:
PROJECT NO: 110424





SINGLE LUMINAIRE POLE LIGHT DETAIL
NOT TO SCALE

LIGHT TYPE A
NLS LIGHTING MODEL NV-I-T3
LED AREA LUMINAIRE
ARCHITECTURAL SWEEP ARM MOUNTING
LUMENS TO BE DETERMINED
COLOR AND FINISH BY OWNER
M.H. = 20' ABOVE PARKING



LIGHTING PLAN HERE

MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
P.O. BOX 2852
KILL DEVIL HILLS, NC 27948
PHONE: 252-255-8026
EMAIL: mrobinson@obxengineering.com

LIGHTING PLAN
PRELIMINARY

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJECT:
DARE COUNTY EMS STATION 5
NAGS HEAD DARE COUNTY NORTH CAROLINA
105 WEST SEACHASE DRIVE, NAGS HEAD

DATE: 11-12-24
SCALE: 1"=20'
DESIGNED: MWR
DRAWN: MWR
SHEET: 5 OF 5
CAD FILE:
PROJECT NO: 110424

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON 11-12-24


STATION
5


STATION
5
OCA


STATION
5

Carolina Water Service
of North Carolina™

January 3, 2025

Mr. Dustin Peele
Special Projects – Purchasing Manager, Dare County
P.O. Box 1000954
Marshall C Collins Drive
Manteo, NC 27954

Re: 105 W Seachase Drive
Nags Head, Dare County NC

To Whom It May Concern,

Carolina Water Service of North Carolina ("CWSNC") provides sanitary sewer service to the Nags Head Community which encompasses the above referenced property. CWSNC is a franchised and regulated public utility company in North Carolina.

CWSNC is willing and able to provide sanitary sewer utility needs for the above referenced property with a capacity not to exceed 1400 gallons per day.

If you should have any questions, please do not hesitate to call me at 704-576-1685 or by email at Tony.Konsul@Nexuswg.com .

Thank you in advance for your attention.

Sincerely,

Tony Konsul

Digitally signed by Tony Konsul
DN: OU="Vice President, Operations", O=Carolina Water Service of NC, CN=Tony Konsul, E=Tony.Konsul@Nexuswg.com
Reason: I am approving this document
Location: Charlotte, NC
Date: 2025.01.03 14:01:18-05'00'
Foxit PDF Editor Version: 13.1.4

Tony Konsul
Vice President, State Operations

BOC ACTIONS
WEDNESDAY, FEBRUARY 4, 2026

1. Call to order - Mayor Cahoon called the meeting to order at 09:00 a.m. A moment of silence was followed by the Pledge of Allegiance.

2. Agenda – The Board approved an amended February 4th agenda, moving the New Employee Recognition of Terrence Whitley, the Update on the Estuarine Shoreline Management Plan, and the Review of Town Legislative Agenda items to March. Mayor Cahoon noted that Mayor Pro Tem Lambert was not present and is excused.

3. Recognition –
NEW EMPLOYEE – Police Chief Perry Hale introduced Police Officer Cody Douglas, who was welcomed by the Board to Town employment.

NEW EMPLOYEE – Fire Chief Randy Wells introduced Firefighter Steven Gray, who was welcomed by the Board to Town employment.

FIVE YEARS – Public Services Director Nancy Carawan introduced Fleet Mechanic Luis Nieves, who was recognized by the Board for five years of service.

FIVE YEARS – Dep. Town Mngr./Finance Director Amy Miller introduced IT Administrator Karen Snyder, who was recognized by the Board for five years of service.

TEN YEARS – Town Manager Andy Garman introduced Dep. Town Mngr./Finance Director Amy Miller, who was recognized by the Board for ten years of service.

PROCLAMATION – Annual Safety Week – Deputy Fire Chief Shane Hite reviewed next month's Annual Safety Week activities – The Board adopted the Proclamation declaring March 1 - 7, 2026 Safety Week as presented.

Mayor Cahoon commended Public Services and Fire Department personnel for their effective response during the recent snowstorm, including a fire response under hazardous conditions, and thanked staff who responded for their dedication and service to keeping Nags Head safe.

4. Public Comment –
John Cece – Nags Head resident – spoke on his perceived inequality of funding for the proposed 2026 Beach Nourishment Project. He gave the Board a spreadsheet to clarify his comments.

Randy Cartwright – Nags Head resident – requested that the Board review, and amend if needed, the Group Demonstration ordinance to ensure constitutional compliance.

5. Consent Agenda – The Consent Agenda was approved as presented and consisted of the following:
- Consideration of Budget Amendment #6 to FY 25/26 Budget

- Consideration of Tax Adjustment Report
- Request to Advertise Delinquent Taxes
- Approval of Minutes
- Consideration of Resolution Authorizing Litigation to Confirm and If Necessary Condemn Beach Nourishment Easements
- Request for Public Hearing to Consider a Special Use Permit/Site Plan Review submitted by Albemarle & Associates, Ltd on behalf of Coastal Bluewater Capital, LLC and TW's Bait and Tackle for a Group Development to be Located at 2230 S. Croatan Highway, Nags Head
- Request for Public Hearing to Consider a Text Amendment to the Unified Development Ordinance (UDO) Submitted by Albemarle & Associates, Ltd. on behalf of Dare County to Amend the Lighting Ordinance for Publicly Owned and Publicly Accessible Pickleball Courts

6. Planning Director – Planning Director Kelly Wyatt summarized her monthly report and was thanked by the Board for her efforts.

7. RECESS/RECONVENE – The Board took a brief recess at 9:35 a.m. and reconvened at 9:40 a.m.

8. Annual Audit Report - Deputy Town Manager/Finance Officer Amy Miller introduced Emily Mills, a partner with DMJPS, who presented the town's annual comprehensive financial report via pre-recorded video. Mills reported that the firm issued an unmodified opinion on the town's financial statements as of June 30, 2025, which is the highest level of assurance independent auditors can issue.

9. Committee Reports

- Comr. Vaughan – reported on the January 15th Dare County Tourism Board meeting noting that the boardwalk at the Soundside Event site was on schedule for completion in late February. A contractor has been hired to repair the electrical platform that was damaged, with completion expected by late spring. They are currently accepting event grant applications during the first two weeks of February. Occupancy tax collection was reported as flat compared to the previous year, with meals revenue up slightly at 2.5%.

10. 2026 Beach Nourishment Project – The Board approved the Notice of Award to Weeks Marine for the 2026 Beach Nourishment Project, authorized the Town Manager to execute the construction contract in the amount of $36,412,600 contingent upon the Town Attorney's review, and adopted Beach Nourishment Maintenance Capital Project Ordinance Amendment #18.

11. Town America 250 Activities – Town Clerk Brittany Phillips summarized the report on the Dare County's America 250 Celebration and the Town events planned to celebrate the 250th anniversary of the signing of the Declaration of Independence.

12. Group Demonstration Ordinance – The Board adopted an amendment to the ordinance for group demonstration permit requirements. They changed the small group exception to no more than 30 individuals instead of its previous requirement of no more than 15.

13. Mayor Cahoon – The Mayor noted that the DC Fly-in he mentioned at last month's meeting was cancelled due to weather.

14. Closed Session – The Board entered Closed Session to consult with the Town Attorney regarding matters protected by the attorney/client privilege and to preserve that privilege, to include the Cherry, Inc litigation and potential legal issues associated with beach nourishment pursuant to GS 143-318.11(a)(3). The time was 10:19 a.m.

15. Open Session - The Board re-entered Open Session at 10:45 a.m. Attorney Leidy reported that the Board discussed matters that are protected by attorney/client privilege, but no other actions were taken.

16. Adjournment - The Board passed a motion to adjourn at 10:45 a.m.

AGENDA ITEM SUMMARY

Town of Nags Head Board of Commissioners
REGULAR SESSION: February 4, 2026

AGENDA ITEM F.1.

Update from Planning Director

Prepared by	Reviewed by
Kelly Wyatt, Planning Director	Kelly Wyatt Brittany Phillips Andy Garman

Staff Comments/Recommendation

Please find attached a monthly update from Planning Director Kelly Wyatt that includes permitting and code enforcement data through December 2025.

Specific Action Requested

This item is provided for Board information and update.

Summary

This memo provides an overview of selected Planning and Development Department activities, projects, and initiatives. If requested, staff will be prepared to discuss any of this information in detail at the Board of Commissioners meeting on Wednesday, February 4, 2026.

Monthly Activity Report

In addition to permitting, inspections, code enforcement, and Todd D. Krafft Septic Health Initiative activities, staff were involved in the following meetings or activities of note during the month of January:

- Tuesday, January 6th — Technical Review Committee Meeting
- Wednesday, January 7th — Board of Commissioners Meeting
- Wednesday, January 7th - Harvey/OBVB Sound Access Living Shoreline Progress Meeting
- Thursday, January 8th — Board of Adjustment Meeting (no hearings)
- Saturday, January 10th — Dowdy Park Winter Market 9am - noon
- Tuesday, January 20th — Planning Board Meeting
- Wednesday, January 21st - Board of Commissioners Mid-Month (not scheduled)
- Thursday, January 22nd — Local Planners CRS Users Group Meeting

Planning Board — Pending Applications and Discussions

The Planning Board most recently met on Tuesday, January 20, 2026. At that meeting, the Board took the following actions:

- Elected officers, appointing Meade Gwinn as Chair and David Elder as Vice-Chair.

- Considered a Special Use Permit and Site Plan Review submitted by Albemarle & Associates, Ltd., on behalf of Coastal Bluewater Capital, LLC and TW's Bait & Tackle, for the construction of a Group Development

consisting of detached buildings to accommodate retail space, art gallery space, and associated accessory storage. The property, located at 2230 S. Croatan Highway, is zoned C-2, General Commercial. The Planning Board voted unanimously to recommend denial of the request due to noncompliance with the Town's commercial architectural design standards. The Board requested that the applicant work with staff to develop a compliant architectural design and return for reconsideration at the February meeting, while maintaining the public hearing schedule targeting a March Planning Board meeting.

- Considered a text amendment submitted by Albemarle & Associates, Ltd., on behalf of Dare County, to amend lighting levels permitted for publicly owned and publicly accessible pickleball courts. The Planning Board voted unanimously to recommend approval of a tiered lighting framework with additional conditions aligned with the Town's Dark Sky objectives.

- Accepted the 2026 Planning Board Submittal Calendar.

The next Planning Board meeting is scheduled for Tuesday, February 17, 2026. Anticipated agenda items include reconsideration of the Special Use Permit/Site Plan Review for TW's Bait & Tackle Group Development, specifically related to revised architectural compliance, and consideration of Site Plan Review for construction of a 6,760 square foot Dare County EMS Station located at 105 W. Seachase Drive, as the previous site plan approval has expired.

Board of Adjustment – Recent and Pending Applications
There were no items for the Board of Adjustment's consideration in January 2026.

Additional Updates

- DWMP/Septic Health Advisory Committee — The Septic Health Advisory Committee meeting originally scheduled for January 27, 2026, was postponed due to limited availability among both committee members and staff. Staff are currently working to reschedule the meeting for mid to late February.

  Environmental Planner Conner Twiddy continues to see consistent participation in the Septic Health Program. In addition, the program has gained regional attention. Following a visit by Mount Pleasant Waterworks (South Carolina) to learn about Nags Head's approach, they have now invited Conner to participate in a one-day "Septic Think Tank" in Columbia, SC. The event will include partners such as South Carolina Sea Grant, South Carolina Department of Environmental Services, Clemson Extension, and regional Councils of Government, and will focus on idea-sharing and best practices. Conner has been asked to present on the Town of Nags Head's Septic Health Program and participate in facilitated discussion, which is a significant professional recognition and a strong endorsement of the Town's program.

  Staff also continue to coordinate with the Division of Water Infrastructure (DWI) regarding the Town's proposed zero-interest Septic Repair Loan Program. DWI has provided a series of follow-up questions related to project scope, and staff are actively working to respond. Finally, several malfunctioning groundwater monitoring loggers have been returned to OTT Hydromet for evaluation. OTT Hydromet is currently researching the issues and may schedule a site visit to provide hands-on technical assistance if needed.

- Estuarine Shoreline Management Plan — Deputy Planning Director Joe Costello is scheduled to update the Board of Commissioners at their February 4, 2026, meeting on the progress of projects associated with the implementation of the Estuarine Shoreline Management Plan (ESMP).

- Sand Relocation and Dune Management Cost Share Program – Planning staff continue to process applications for both the Sand Relocation and Dune Management Cost Share programs. As of January 30, 2026, the Town has received a total of 125 sand relocation applications, with the pace of new submittals slowing slightly this month, and 67 dune management cost share applications. To date, approximately

$203,500 of the $400,000 allocated for these programs has been committed.

- Dowdy Park Events/Farmers Market/Holiday Markets/Art & Culture — The first Winter Market, held at Dowdy Park on January 10th, was very well attended and continues to demonstrate strong community interest in off-season programming. The next Winter Market is scheduled for Saturday, February 14th, from 9:00 a.m. to noon at Dowdy Park, with additional Winter Markets planned for March and April.

  The Committee for Art and Culture met on January 14th. Members received a program and event update from Event Coordinator Paige Griffin. The Committee is scheduled to meet again on February 11th, with a focus on developing ideas for potential programming at Whalebone Park and preparing for their March update to the Board of Commissioners.

  Paige continues to pursue sponsorships for the upcoming event season to sustain existing programs and support the expansion of new initiatives, including programming at Whalebone Park. Anyone interested in learning more about sponsorship opportunities is encouraged to contact Paige Griffin directly. In addition, Paige is working with an artist from the College of The Albemarle who is interested in pursuing a public art installation within the Town. The artist is scheduled to present conceptual ideas to the Committee for Art and Culture in February, and if supported, the concept will be brought forward to the Board of Commissioners in March. Paige is also in the process of finalizing musical performers for the upcoming summer concert series.

Upcoming Meetings and Other Dates

- Tuesday, February 3rd — Technical Review Committee Meeting
- Wednesday, February 4th — Board of Commissioners Meeting
- Wednesday, February 11th — Committee for Art and Culture Meeting
- Thursday, February 12th — Board of Adjustment Meeting (no hearings)
- Saturday, February 14th — Dowdy Park Winter Market 9am - noon
- Tuesday, February 17th — Planning Board Meeting
- Wednesday, February 18th — Board of Commissioners Mid-Month (if scheduled)
- February 26th & 27th — Board of Commissioners Retreat



Attachments

1. 2 F1 Planning Monthly Report

TOWN OF NAGS HEAD PLANNING AND DEVELOPMENT
MONTHLY REPORT
DECEMBER 2025

DATE SUBMITTED: January 7, 2026

	Dec-25	Dec-24	Nov-25	2025-2026 FISCAL YTD	2024-2025 FISCAL YTD	FISCAL YEAR INCREASE/ DECREASE
BUILDING PERMITS ISSUED - RESIDENTIAL						
New Single Family	4	0	1	10	11	(1)
New Single Family, 3000 sf or >	0	2	0	2	7	(5)
Duplex - New	0	0	0	0	0	0
Sub Total - New Residential	4	2	1	12	18	(6)
Miscellaneous (Total)	65	48	48	246	202	44
Accessory Structure	*4*	*5*	*2*	15	*21*	(6)
Addition	*2*	*2*	*1*	7	*10*	(3)
Demolition	*2*	*0*	*0*	5	*5*	0
Move	*2*	*0*	*0*	2	*0*	2
Remodel	*10*	*11*	*10*	52	*48*	4
Repair	*45*	*30*	*35*	165	*118*	47
Total Residential	**69**	**50**	**49**	**258**	**220**	38
BUILDING PERMITS ISSUED - COMMERCIAL						
Multi-Family - New	0	0	0	0	0	0
Motel/Hotel - New	0	0	0	0	1	(1)
Business/Govt/Other - New	0	0	0	0	0	0
Subtotal - New Commercial	0	0	0	0	1	(1)
Miscellaneous (Total)	11	3	7	44	32	12
Accessory Structure	*1*	*0*	*1*	12	*9*	3
Addition	*0*	*0*	*0*	1	*0*	1
Demolition	*0*	*0*	*0*	0	*0*	0
Move	*0*	*0*	*0*	3	*0*	3
Remodel	*6*	*2*	*2*	17	*9*	8
Repair	*4*	*1*	*4*	11	*14*	(3)
Total Commercial	**11**	**3**	**7**	**44**	**33**	11
Grand Total	**80**	**53**	**56**	**302**	**253**	49
SUB-CONTRACTOR PERMITS						
Electrical	34	35	25	227	256	(29)
Gas	2	5	1	13	12	1
Mechanical	22	18	18	163	176	(13)
Plumbing	9	12	5	43	55	(12)
Fire Sprinkler	0	0	0	2	0	2
VALUE						
New Single Family	$1,027,030	$0	$500,000	$5,192,030	$5,166,157	$25,873
New Single Family, 3000 sf or >	$0	$1,350,000	$0	$2,800,000	$6,933,200	($4,133,200)
Duplex - New	$0	$0	$0	$0	$0	$0
Misc (Total Residential)	$2,582,616	$2,142,353	$2,116,575	$9,633,548	$8,101,988	$1,531,560
Sub Total Residential	**$3,609,646**	**$3,492,353**	**$2,616,575**	**$17,625,578**	**$20,201,345**	($2,575,767)
Multi-Family - New	$0	$0	$0	$0	$0	$0
Motel/Hotel - New	$0	$0	$0	$0	$18,000,000	($18,000,000)
Business/Govt/Other - New	$0	$0	$0	$0	$0	$0
Misc (Total Commercial)	$1,540,505	$190,000	$152,952	$8,035,967	$1,831,899	$6,204,068
Sub Total Commercial	**$1,540,505**	**$190,000**	**$152,952**	**$8,035,967**	**$19,831,899**	($11,795,932)
Grand Total	**$5,150,151**	**$3,682,353**	**$2,769,527**	**$25,661,545**	**$40,033,244**	**($14,371,699)**

TOWN OF NAGS HEAD PLANNING AND DEVELOPMENT
MONTHLY REPORT
DECEMBER 2025

DATE SUBMITTED: January 7, 2026

	Dec-25	Dec-24	Nov-25	2025-2026 FISCAL YTD	2024-2025 FISCAL YTD	FISCAL YEAR INCREASE/ DECREASE
ZONING						
Zoning Permits	92	58	55	323	275	48
Soil & Erosion	4	2	0	12	19	N/A
Stormwater Plans	1	1	3	9	14	N/A
CAMA						
CAMA LPO Permits	4	2	2	19	9	11
CAMA LPO Exemptions	9	7	9	49	28	0
Sand Relocations	32	11			64	N/A
CODE COMPLIANCE						
Cases Investigated	11	20	20	120	169	63
Warnings	3	0	7	33	16	13
NOVs Issued	8	20	13	87	150	50
Civil Citations (#)	0	0	0	0	0	0
Civil Citations ($)	$0	$0	$0	$0	$0	$0
SEPTIC HEALTH						
Tanks inspected	11	6	12	72	54	28
Tanks pumped	8	5	6	68	36	28
Water quality sites tested	1	2	2	151	112	125
Personnel Hours in Training/School	61	10	45	332	202	126

Kelly Wyatt, Planning Director

AGENDA ITEM SUMMARY

Town of Nags Head Planning Board
REGULAR SESSION: February 17, 2026

AGENDA ITEM H.2.

Update on Estuarine Shoreline Management Plan.

Prepared by	Reviewed by
Lily Nieberding, Permitting Coordinator	Lily Nieberding Lily Nieberding

Staff Comments/Recommendation

Specific Action Requested

None

Summary

Harvey/Soundside Event Site Living Shoreline Project
The major permit package was submitted to the Division of Coastal Management on January 14th and is currently under review. Construction is likely to take place in the fall of 2026.

Villa Dunes Drive Project Area
The town has contracted with Environmental Professionals, Inc. to engage with Villa Dunes Drive property owners to better understand site-specific concerns and identify alternative, implementable solutions.

Soundside Road Project Area
Staff has asked the RCCP grant team for a scope change to exclude the offshore breakwaters and to instead allow the town to focus funds on the resiliency berm section along Soundside Road. As a part of this scope change request, staff has also requested the use of previously awarded RCCP funds for the design of stormwater management components as part of the project. The town is still waiting for approval from the RCCP team on the requested scope change.

Catfish Farm/Causeway Living Shoreline Project
Staff has asked the RCCP project team for a scope change to fund a living shoreline design at the Catfish Farm/Causeway project area as an alternative to the offshore breakwaters at the Villa Dunes and Soundside Road sites.

- The area was identified in the ESMP as an alternative pilot site location.
- This location includes the Causeway, which is crucial public infrastructure that will likely be 'riprapped' by NCDOT if the marsh in front continues to erode. Given the huge amount of fetch coming up to this site, this is likely without intervention. People note this area is a hub of speckled trout and a variety of species of birds and fish.
- Potential spat in the area may allow for oyster reefs and/or other innovative natural approaches to erosion control. More groundwork is needed to confirm anecdotal evidence that the area can support oysters, but

oyster reefs or other natural shoreline treatments would be preferable to gray infrastructure as they provide water quality and habitat benefits in addition to erosion protection.

- The town owns the 'catfish farm' parcels adjacent to Sugar Creek to the east. These are wetlands that provide crucial habitat and water quality benefits but are eroding and need intervention to protect them in the long term. These parcels are already under a conservation easement. Living shorelines have been confirmed as allowable within the terms of the conservation easement.
- The 4.7425 town-owned tract, pin #080019624199, the .0574 acre tract owned by Virginia Campbell, pin #0800119614808, and the 2.8471 tract owned by Sugar Creek LLC, pins# 080019514133 and 08001196127, are included in this design scope.

RCCP has approved the location change request. The town and RCCP are still formalizing changes with the Soundside Road project area which is delaying moving forward at this location as it is the same grant funds.

Attachments

1. ESMP_final

The Town of Nags Head

Estuarine Shoreline Management Plan



TOWN OF NAGS HEAD

Biohabitats SOUTHEAST ATLANTIC BIOREGION

moffatt & nichol

January 2023

Acknowledgments

This document synthesizes input and work by dedicated people and organizations who guided its development: Town of Nags Head Board of Commissioners (TONH), Planning Board, and staff; the Estuarine Shoreline Management Plan (ESMP) Advisory Council and Technical Team, especially Coastal Studies Institute, The Nature Conservancy, and North Carolina Coastal Federation; residents who attended meetings and hosted site tours; and the consultant team of Biohabitats and Moffat & Nichol. The Town would like to thank the National Fish and Wildlife Foundation (NFWF) for funding a portion of this project, and for providing much needed funds for resilience projects nationally. We also thank all participants in the August public workshop for lending their time and perspectives.



Table of Contents

INTRODUCTION 4

THE PLANNING OPPORTUNITY 5

FOUNDATIONAL PLANS & POLICIES 6

SYSTEM DYNAMICS 9

TODAY'S ESTUARINE SHORELINE 12

CLIMATE CHANGE AND RESILIENCE 18

KEY MANAGEMENT CHALLENGES 20

SHORELINE TYPOLOGIES 21

RESTORING THE SHORE: SOLUTIONS 24

PILOT SITE CONCEPTS 36

IMPLEMENTATION 44

APPENDIX: WAVE MODELING AND ENGINEERING MEMO

Introduction

The Town of Nags Head is affected by impacts from coastal hazards like hurricanes, nor'easters, and sea level rise. The negative impacts of these hazards affect private and public property as well as key infrastructure and natural resources. Mitigating the impacts of these hazards to preserve the community's distinctive heritage and unique lifestyle, critical natural resources, and coastal ecosystem is important to the Town and its economy, as reflected in the Town's vision. The Town of Nags Head Estuarine Shoreline Management Plan (Plan) is an essential step in mitigating the impacts of flooding, storm surge, erosion, and wave action on the estuarine shoreline. The Plan is a comprehensive effort to address the management of 17 miles of estuarine shoreline in the Town while balancing land use, ecosystem health, public health, and recreational opportunities. This Plan characterizes the existing shoreline and its historical changes; identifies shoreline best management practices, uses, and policy; explores the legal and regulatory impacts on shoreline management and nature-based solutions; and considers the impacts of coastal hazards.



The Planning Opportunity

Widely recognized for thought-leadership on coastal management issues, the Town of Nags Head is well-positioned to advance projects that could establish precedent in estuarine shoreline management. Future generations will look back on this time as the early days of collaborative coastal resilience, but the need is already urgent, and there are well-resourced entities in search of new and big ideas on preparing communities for change. If Nags Head chooses to remain at the fore of resilience planning by acting together, leveraging its partnerships, and harnessing the current flush of funding for nature-based solutions, it has the opportunity to safeguard assets that are quickly degrading.

STUDY PURPOSE & GOALS

The principal purpose of the Plan, in accordance with its grant deliverables for its National Fish and Wildlife Foundation funding, is to develop strategies that will prioritize living and nature-based shoreline management projects appropriate for each segment of the Town's estuarine shoreline.

The goals of the Town of Nags Head planning staff and volunteer members of the Advisory Committee were to work together to:

- Identify strategies and sites where Nags Head's estuarine shoreline can be managed to safeguard critical structures, enhance habitat values, and provide aesthetic and community benefits
- Build public awareness of the risks to the current estuarine shoreline from sea level rise and storm events
- Describe regulatory barriers and pathways to implementation of nature-based solutions
- Preserve or enhance recreational access to the sound

PUBLIC ENGAGEMENT

Public input collected via an appointed advisory committee, a volunteer technical committee, small group and stakeholder conversations, surveys, and public workshops is woven throughout this Plan. The complete timeline and a list of engagement events is summarized in the final section.

Foundational Plans & Policies

Nags Head has demonstrated leadership in planning for complex coastal issues, so this Plan advances a body of work that has been supported by decision-makers and community input. A few of the most important documents that serve as foundation to this plan are the TONH Comprehensive Plan, the Nags Head Vulnerability Consequences and Adaptation Planning Scenario (VCAPS), and recent regulatory changes that smooth the approval pathways for nature-based coastal protection.

FOCUS NAGS HEAD COMPREHENSIVE & CAMA LANDUSE PLAN

In order to better plan for the future, Nags Head initiated a comprehensive planning process in 2015, known as FOCUS Nags Head. The FOCUS Plan was adopted in 2017 and its revision was recertified in 2022. The plan includes policies and actions that require continued commitment to examine how sea level rise and climate change will impact the Town and what the Town and its citizens can do to protect vital infrastructure, preserve community character, and maintain a thriving local economy.

VULNERABILITY CONSEQUENCES AND ADAPTATION PLANNING SCENARIO (VCAPS)

Nags Head contacted North Carolina Sea Grant to conduct an extension project to provide Nags Head with the data, legal, and policy analysis it needs to understand its vulnerabilities and more effectively plan for the future. North Carolina Sea Grant utilized the Vulnerability Consequences and Adaptation Planning Scenario (VCAPS) process in the summer of 2015. Background research and semi-structured interviews were conducted during the summer, and a public VCAPS workshop was held on December 7-8, 2015. One of the top priorities emerging from that process was to develop a management plan that establishes policies, procedures, and an overall management strategy for the Town's estuarine shoreline.

Foundational Plans & Policies

US ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 54 & NC

In 2017, the U.S. Army Corps of Engineers authorized its first Nation Wide Permit for Living Shorelines to address the construction and maintenance of erosion prevention projects are built with nature-based structural and organic materials, such as plants, submerged aquatic vegetation, wood and stone. In 2019, the NC Coastal Resources Commission followed suit, establishing a permitting pathway for living shorelines under 500 linear feet in length. These two regulatory changes set the stage for advancing nature-based solutions on the NC coast.

ALBEMARLE-PAMLICO NATIONAL ESTUARY PARTNERSHIP COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN

In 2012, Albemarle-Pamlico National Estuary Partnership (APNEP) adopted a 10-year plan outlining management actions identified in five general components (Identify, Protect, Restore, Engage, Monitor), which together address the major challenges to understanding, protecting, and restoring ecosystem health and function while embracing the new systems-based approach to managing the Albemarle-Pamlico region.


A CHANGING SHORE

System Dynamics

Long-time residents and historians know how much the estuarine context of Nags Head has changed. Roanoke sound was broader and deeper before the mid 1700s, when the Roanoke inlet closed and forced more water through the historically shallow Croatan sound. Recent land-loss has been visible to long-term residents. This section examines the changes and trajectory of the estuarine shoreline along Nags Head and tries to understand how the sound and its marsh and seagrass beds have changed and on what pathway they will progress.

NAGS HEAD AS A BARRIER ISLAND

Geomorphology of Roanoke Sound

Barrier islands require three conditions to form: a gradually rising sea level, a surplus of sand, wind and waves large and strong enough to move the sand. The northern province of North Carolina's barrier island system (i.e. north of Cape Lookout) is characterized by a Pliocene-quaternary geologic framework and dominated by sediment, which shapes its gentle slopes. The rivers that drain the piedmont watersheds into this area are brown-water rivers with high loads of sediment. Because its barrier islands are long and have few inlets, there is little effect of astronomical tides, and the water levels and wave energy are instead predominantly wind driven. The system is also relatively fresh, such that oysters do not thrive north of Whalebone Junction.

Inlets have historically formed and filled along the Outer Banks. Between 2-5 inlets used to perforate the barrier island system above Nags Head, the last disappearing close to 1800. These breaks in the barrier island were an important source for the surplus of sand to move into the estuary and accumulate along its shoreline.

Wind has also shaped the land. Nags Head is a "complex" barrier island, with high areas created from old beach ridges and prodigious movement of sand by wind. In many places, the barrier dune ridges creating the higher parts of the island have long prevented regular overwash from the ocean side, though overwash typically provides sand to estuaries bordered by low and narrow segments of the Outer Banks. But even without large overwash fans from big storms, pre-development Nags Head moved a lot of sand to the estuarine side of the island. The obvious marker of this is Jockey's Ridge, which grew 20 feet in height from 1915 to 1953 but has not accumulated more sand since then. Instead, it has eroded, mostly by wind that drives the sand steadily south.

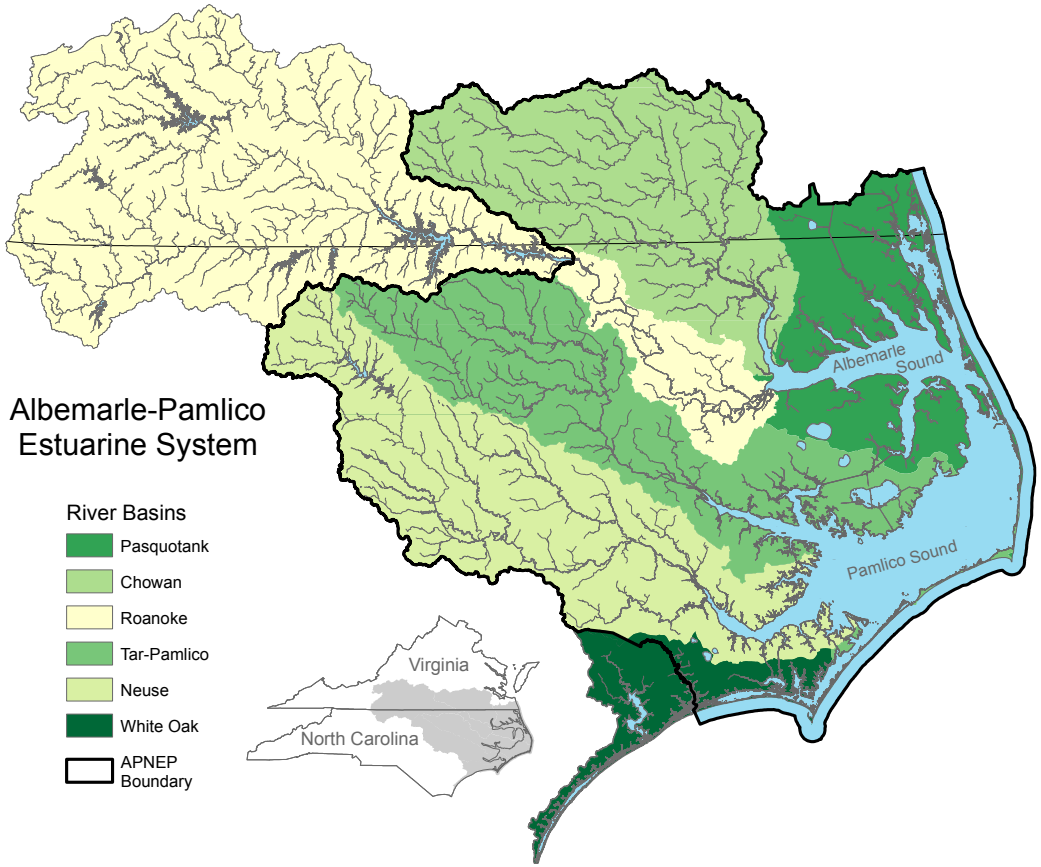
Today the northern inlets have closed and urban development both prevents overwash along the island and limits the movement of sand by wind. As a result, the sediment supply to the estuarine shoreline of Nags Head is severely limited to sand eroding from Colington Island and Jockeys Ridge along with what material is carried down the rivers from upland sources.

System Dynamics: Upstream Watershed Change

Lands and Dams

According to the 2012 APNEP Ecosystem Assessment, most estuarine shorelines in Albemarle-Pamlico Estuarine System are eroding in response to the interaction of storms and sea level rise. However, previous studies indicate that shoreline erosion is locally variable even over short distances. Mainland marsh and low sediment bank have the overall highest average rates of estuarine shoreline recession.

The water that passes along Nags Head's estuarine shore comes from large upstream watersheds where land use has been changing and impervious surface has been added. The changes to the water volume, sediment load, and water quality are known to be significant.



Map Credit: Tim Ellis

System Dynamics: Benefits at the Shoreline

Where Land Meets Water

Because estuaries (or "sounds") are under the influence of both terrestrial watersheds and the ocean, they are highly productive, full of plants and animals, and extremely rich in nutrients. Within estuaries, salt marshes and sea grass beds are some of the most productive ecosystems in the world. They provide essential food, refuge, and nursery habitats for more than 75% of fisheries species and an even higher proportion of recreational fishing catch, including shrimp, blue crabs and many finfish. For Nags Head, aesthetic and recreational functions of the estuarine shoreline are prized by visitors and residents.

In urbanized areas, they can also serve critical functions in improving water quality, as toxic chemicals and nutrients, especially phosphorous, adhere to the wetland soil (Deaton et al 2010). Finally, a gentle, sloping shoreline that is covered in vegetation dissipates wave energy and minimizes erosion or may even accrete sediment when water is still. Coastal wetlands dampen storm surge and wind impacts, reducing property damage in storm events. An economic study from 2020 (Sun and Carson) valued the storm protection offered by Dare County wetlands at $618,000 per km^2 over a 30-year horizon. This protection depends on the persistence of marsh habitats.

	Very Important (1)	Somewhat Important (2)	Neutral (3)	Not Very Important (4)	Not Important (5)	Weighted Average
Ecological: Habitat and water quality, absorbing wave energy	26	8	2	0	0	1.33
Cultural: Viewsheds, open character, natural vistas	19	11	5	0	0	1.6
People: Preventing injuries and/or loss of life	19	11	2	0	2	1.68
Infrastructure: Preventing damage/loss of roads, bridges, utilities	19	12	2	0	2	1.69
Recreational: Water access, gathering place	18	10	4	1	1	1.74
Personal Property: Protection of property adjacent to shore	16	11	5	1	2	1.91

Respondents to a public survey in May 2022 prioritized ecological functions of habitat, water quality, and wave attentuation as the most important estuarine shoreline benefits.

Today's Estuarine Shoreline

Feasible design recommendations rely on a high-level understanding of the coastal conditions, so the consultant team undertook a preliminary engineering assessment and developed a model to clarify the typical range of values for the parameters that are most important to shoreline design: wave energy, erosion rates, shoreline character, shoreline slope, and presence of marsh. Additional key considerations at the site scale include land use and ownership as well as the proximity or vulnerability of soundside infrastructure. The complete engineering report and geospatial database of the variables considered are described in the appendix and briefly summarized here.



Erosion along unprotected segments of the estuarine shoreline has reached more than 400 ft in some areas.

SUMMARY OF KEY SHORELINE CHARACTERISTICS

Exposed vs Protected Shoreline
- maximum Hs >.5ft during normal conditions
- maximum Hs >.5ft during storm events only

Erosion Rate
- Continuous variable

Shoreline Condition
- Marsh
- Miscellaneous
- Modified (bulkhead, riprap, etc)
- Sediment bank
- Swamp forest

Bank Slope (measured from bottom of low marsh to top of bank)
- steeper than 33%
- between 33-20%
- shallower than 20%

Low Marsh Zone Width (width of low marsh elevation range)
- absent low marsh zone
- less than 6ft
- greater than 6ft

Distance to Infrastructure (structures, roads, utilities, etc)
- less than 15ft
- between 15-30ft
- greater than 30ft

Sea Level Rise (SLR) **Vulnerability/Marsh Migration**
- 2 ft rise
- 3 ft rise
- 4 ft rise

Today's Estuarine Shoreline

WIND, WAVES, AND WATER LEVEL

In the spring of 2022, Moffat & Nichol developed a local Wave Exposure Model to document the baseline condition of the estuarine shoreline. The consultant team worked with East Carolina University's Coastal Studies Institute to collect bathymetry data along Nags Head to supplement the existing federal data. The purpose of the study was to characterize the water levels and wave climate at the project site and use statistical analysis of these environmental parameters to inform the design of shoreline treatments to meet the goals of the shoreline management plan.

To identify the dominant wind directions with large magnitudes at the project site, wind data were analyzed from two sources - Meteorological Terminal Air Reports data located at airports and data from the National Oceanic and Atmospheric Administration's (NOAA) Center for Operational Oceanographic Products and Services. Analysis of the windspeed and direction confirms the seasonal shift in wind direction, with prevalent wind energy coming from the southwest or north/northeast depending on the time of year.

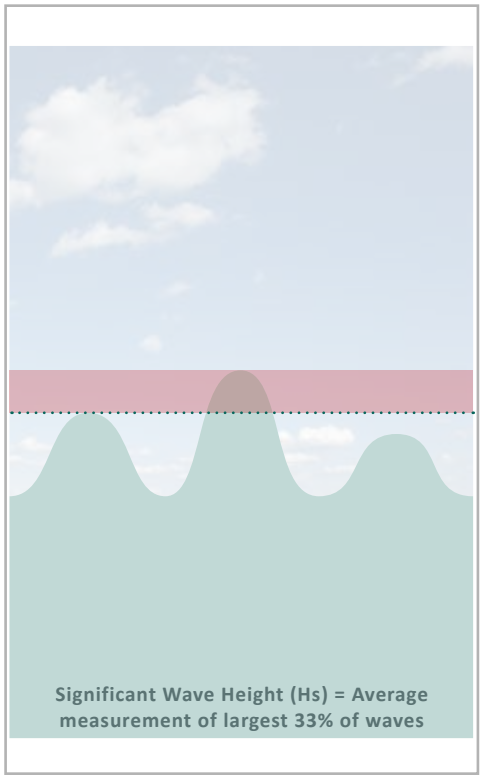
The amount of wave energy hitting the shore depends on the fetch, or extent of open water in the dominant wind direction for any given site. Differences in wind direction and intensity and the fetch in the dominant wind direction create variability in the amount of erosion due to quotidian wave attack, though episodic large storm events have a strong influence on the coastal landforms. Some of the Town's shoreline was well protected by angle and orientation, so the average wave height is low. Other sections of estuarine shoreline are exposed.

As a general rule of thumb, we set the conceptual threshold of "allaowable" wave height as 0.5 feet below the elevation where marsh plants can survive. As wave height and energy varies along the shore, the height requirements for a breakwater to reduce wave attack vary.

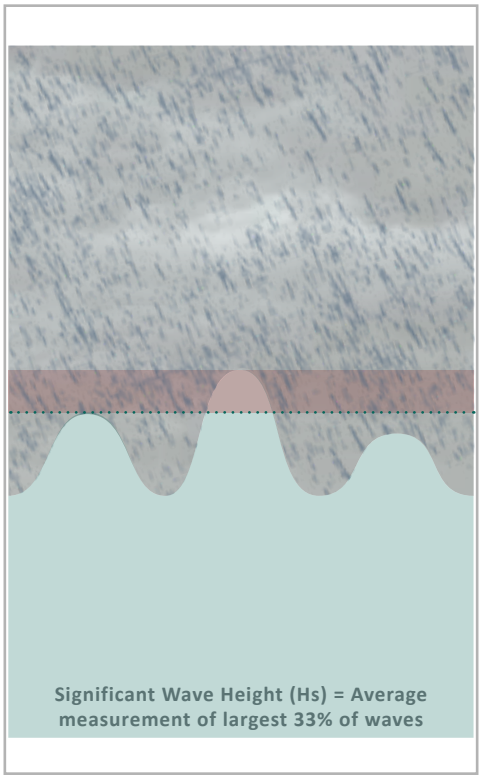
WIND WAVES

The wind wave category seeks to differentiate locations that maintain a highly erosive energy during normal conditions from those that are highly erosive during infrequent storm events. A Significant Wave Height (Hs) is the average wave height of the largest 33% of incoming waves. A max Hs greater than 6in is a threshold above which has been shown to be erosional to marsh communities.

Increased Erosive Energy
Above 6" Wave Crest



Hs greater than 6in during normal conditions



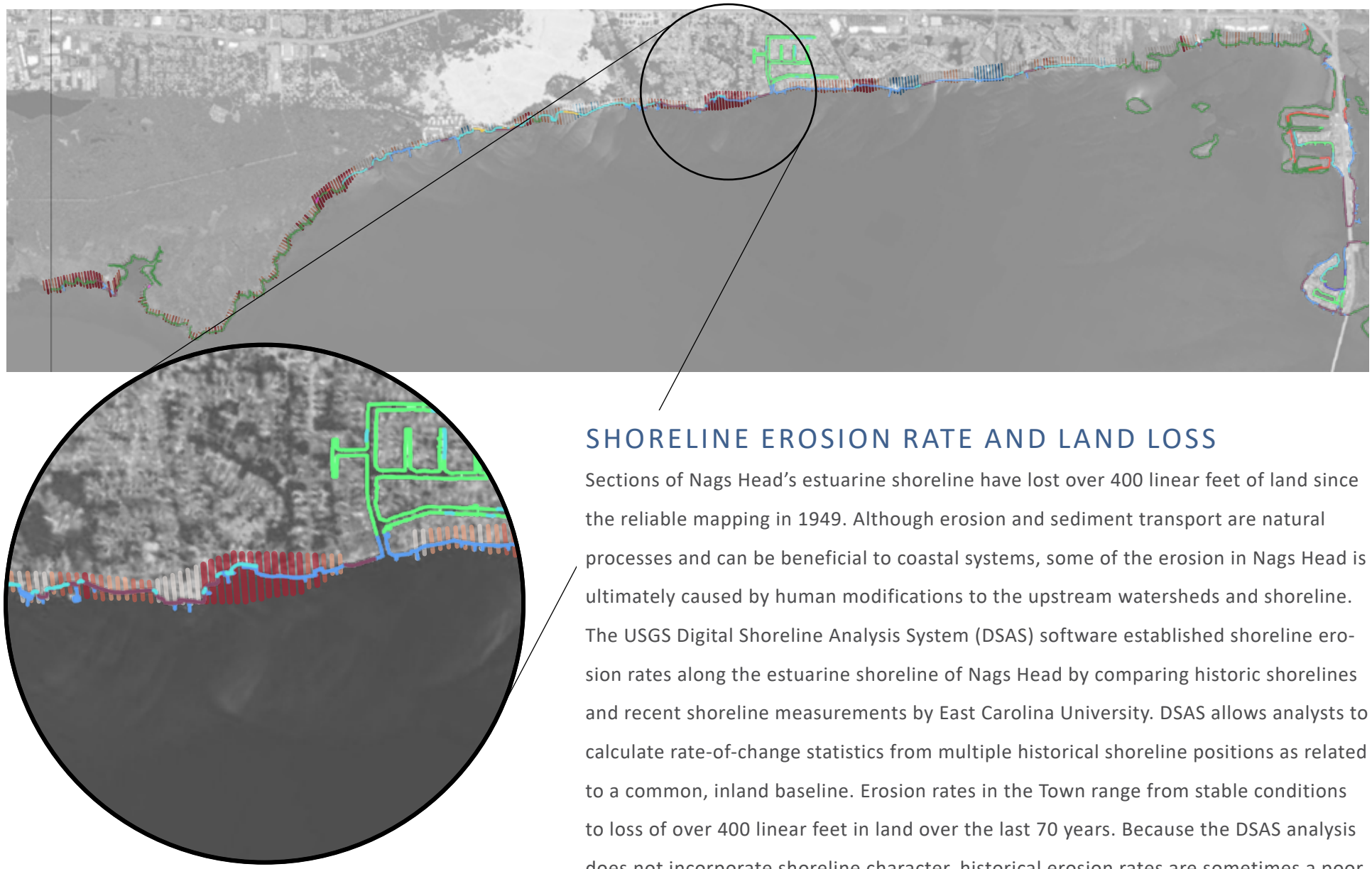
Hs greater than 6in during storm events



Engineering Report - Analysis point locations

Significant Hs greater than 6in during normal conditions: Consistently erosive conditions will require heavier breakwater protection to maintain marsh edge.

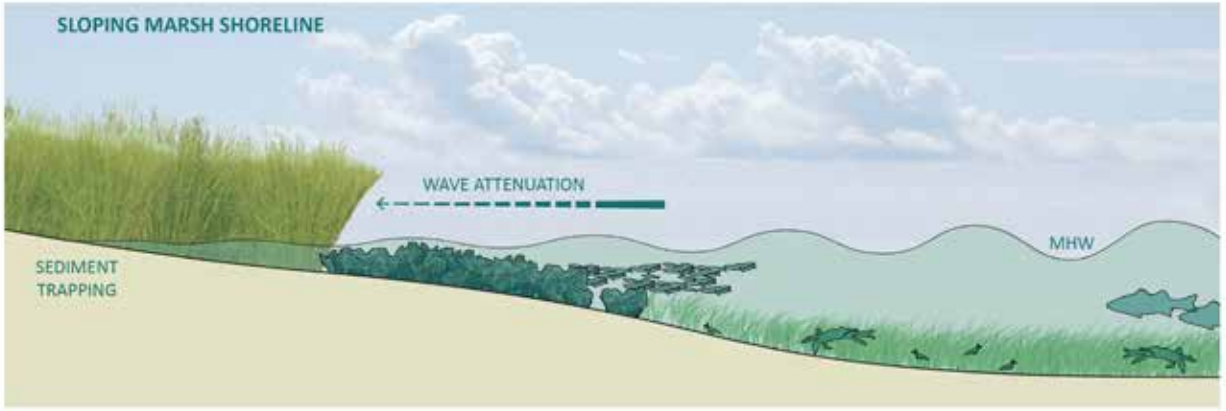
Significant Hs greater than 6in during storm events: Infrequently erosive conditions would benefit from moderate/light breakwater protection.



Each perpendicular line in this figure is a transect that extends offshore to the known extent of the former shoreline.

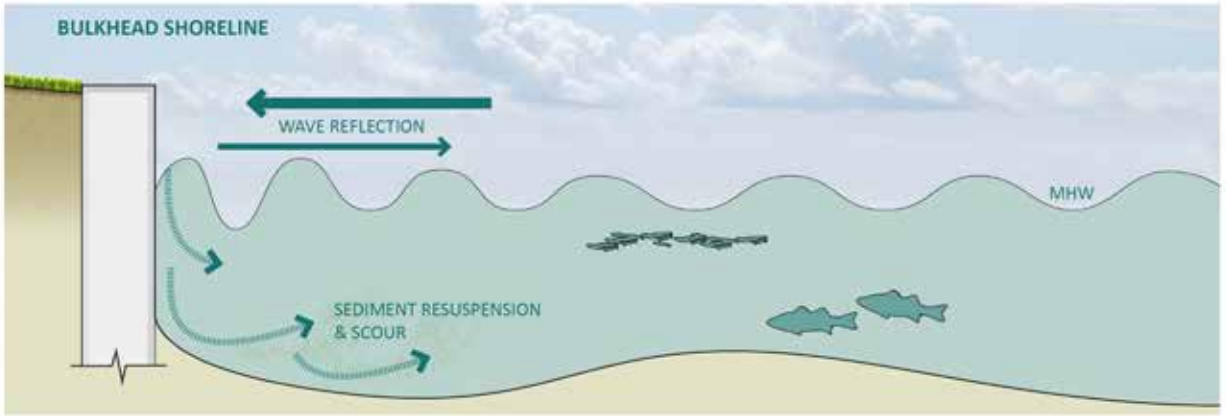
SHORELINE EROSION RATE AND LAND LOSS

Sections of Nags Head's estuarine shoreline have lost over 400 linear feet of land since the reliable mapping in 1949. Although erosion and sediment transport are natural processes and can be beneficial to coastal systems, some of the erosion in Nags Head is ultimately caused by human modifications to the upstream watersheds and shoreline. The USGS Digital Shoreline Analysis System (DSAS) software established shoreline erosion rates along the estuarine shoreline of Nags Head by comparing historic shorelines and recent shoreline measurements by East Carolina University. DSAS allows analysts to calculate rate-of-change statistics from multiple historical shoreline positions as related to a common, inland baseline. Erosion rates in the Town range from stable conditions to loss of over 400 linear feet in land over the last 70 years. Because the DSAS analysis does not incorporate shoreline character, historical erosion rates are sometimes a poor predictor of future ones. For example, a homeowner experiencing rapid land loss might have installed a bulkhead and no longer be experiencing high rates of loss.



TOWN'S NATURAL SHORELINE

Salt- and brackish-water marshes	49,566 lf
Sheltered, vegetated low banks	14,232 lf
Scrub-shrub wetlands	5,060 lf
Fine- to medium-grained sand beaches	1,420 lf
Swamps	211 lf
	70,489 lf



TOWN'S MAN-MADE SHORELINE

Exposed, solid man-made structures	20,160 lf
Sheltered, solid man-made structures	18,853 lf
Exposed riprap	10,314 lf
Sheltered riprap	761 lf
	50,088 lf

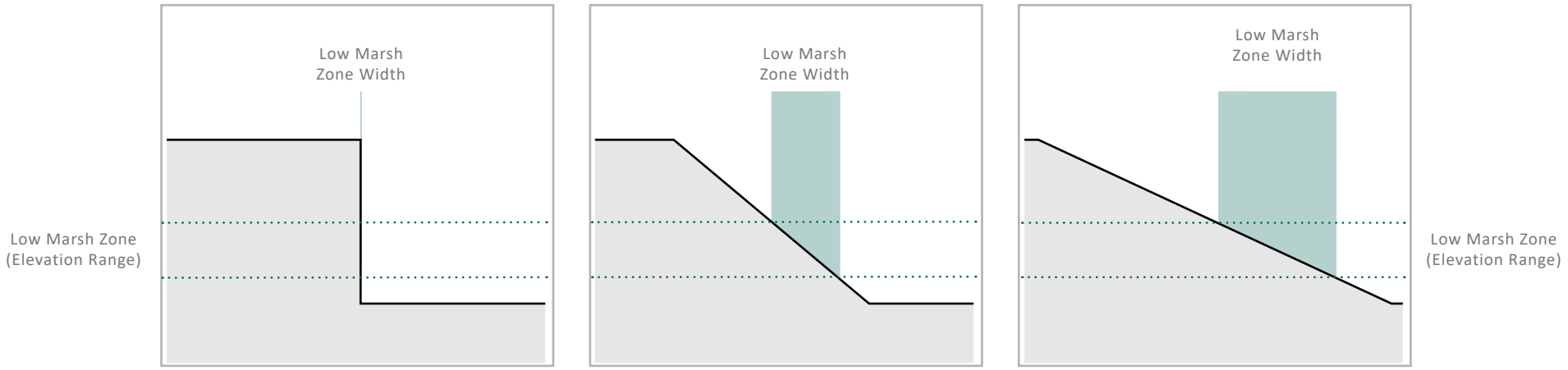
Natural and armored shorelines reflect wave energy differently. Natural shorelines (above) can absorb the wave energy that bounces off of bulkheads (below), creating scour and deepening the nearshore environment.

SHORELINE CHARACTER

In the face of mounting erosion pressure and dwindling accumulation of sediment to bolster the shoreline, many property owners have chosen to fortify or armor their waterfront properties. Stabilization strategies include riprap and bulkheads made from a variety of materials, including wood, vinyl, and masonry materials.

WIDTH OF MARSH ZONE AND BANK SLOPE: ATTRIBUTES OF EXISTING CONDITIONS

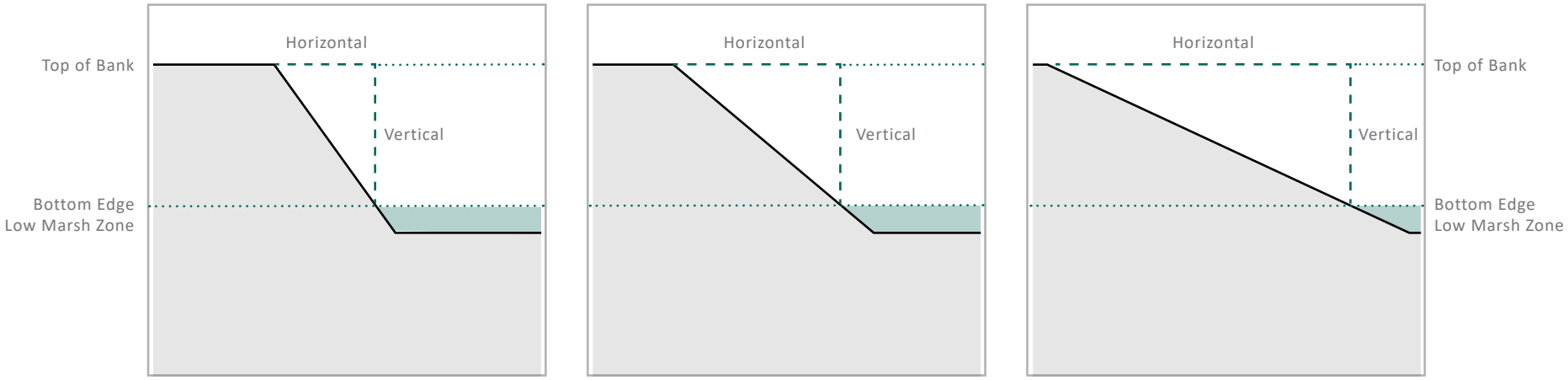
Low Marsh Zone (LMZ) Width



Absent low marsh zone

Less than 6ft wide

Greater than 6ft



Xft Horiztonal : 1ft vertical

Steeper than 33% slope

Xft Horiztonal : 1ft vertical

Between 33-20% slope

Xft Horiztonal : 1ft vertical

Shallower than 20% slope

OWNERSHIP AND LAND USE

Outside the large pieces of shoreline owned by the Nature Conservancy (Nags Head Woods), the State (Jockey's Ridge) and a large single landholder (Nags Head Golf Links), most of the shoreline is comprised of 140 individual residential owners. Additional sectors of ownership are labeled by shoreline segment in the figure below.



Climate Change and Resilience

Future management of the Town's shoreline must be understood in light of climate change. Even if greenhouse gas emissions were eliminated today, continued warming and sea level rise would occur due to the current accumulation of emissions. Climate change is also changing rainfall patterns to favor more intense storm events, with more precipitation coming quickly, and an increased frequency and intensity of hurricanes and similar storms. These major storm events move enough sand to strongly influence coastline conditions.

This plan accounts for the change in sea level between 1992 and 2022 by assuming a combination of the historic rates and the projections reported by NOAA. This results in an increase in all water levels of 6.7 inches (or 0.56 ft) between 1992 and 2022 resulting in an assumed MSL in 2022 of +0.14 ft-NAVD.

The projections labeled "K14" are based on Kopp et al. (2014), which relies on the expert elicitation work of Bamber and Aspinall (2013) for characterizing the contribution to sea level rise from ice sheets. The likely ranges for the K14 projections published in Kopp et al. (2017) present comparable results to other projections. The K14 projections represent the best available projections for local sea level change in North Carolina and were used for this study. The K14 projections for relative sea level change for Duck, NC serve as a useful indicator of anticipated changes in Nags Head.

SEA LEVEL RISE VULNERABILITY

One important shoreline characteristic is its vulnerability to seal level rise, which varies widely depending on topography and the location of infrastructure. It is possible to index vulnerability to the percentage of a parcel that is projected to be underwater under future scenarios and also to score the site's potential for marsh migration. Marsh migration refers to an existing marshes ability to adapt to SLR by moving to higher elevations. SLR information informs cost/benefit calculations and potential longevity of proposed interventions. Unfortunately, SLR projections are widely variable and depend on our collective response in addressing climate change. Timeframes described below assumes an intermediate emissions pathway.



2ft rise



3ft rise

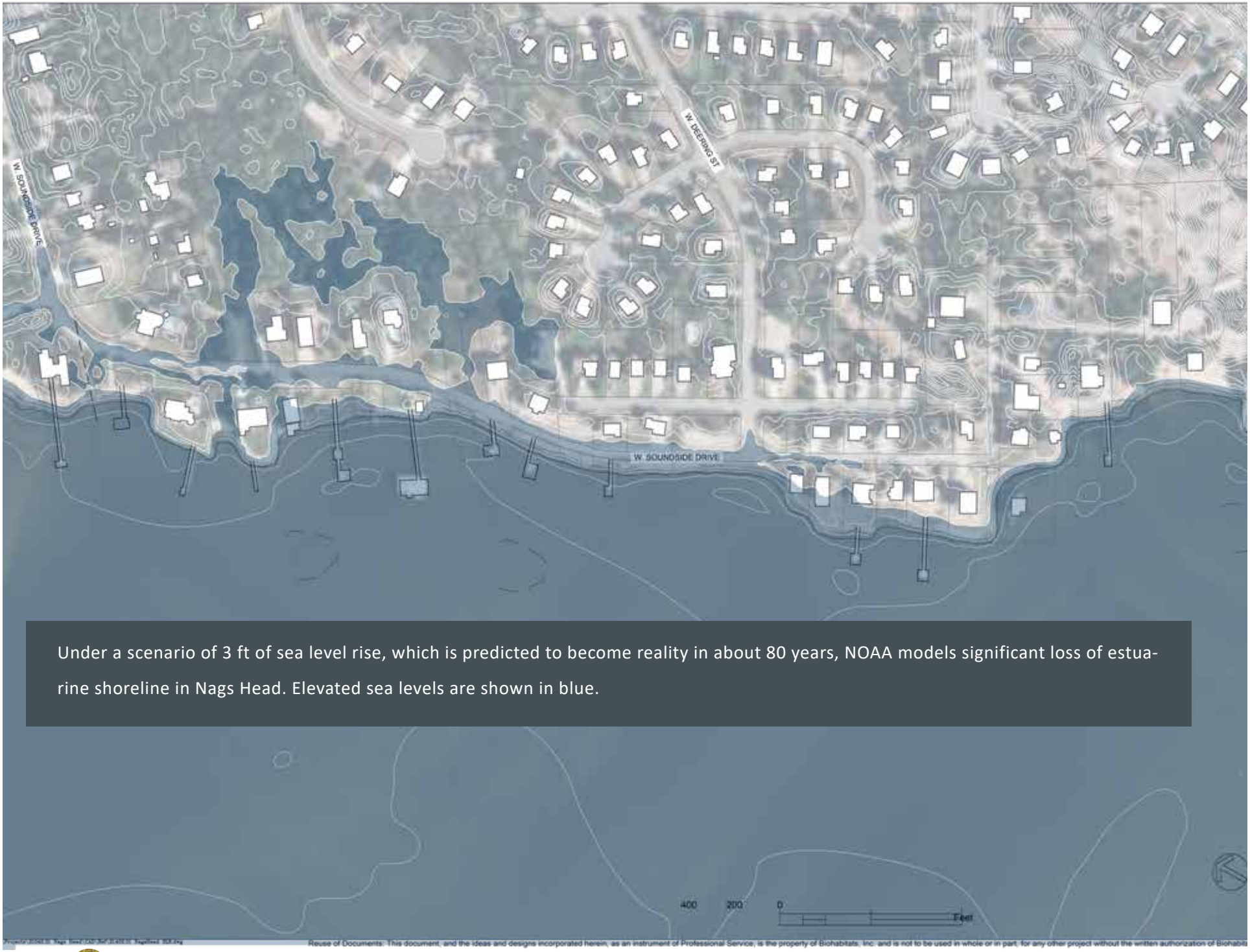


4ft rise

2ft SLR: A rise of 2ft and presumed location of mean sea level (MSL). Estimated timeframe is 30 years (2052 a.d.)

3ft SLR: A rise of 3ft and presumed location of mean sea level (MSL). Estimated timeframe is 50 years (2072 a.d.)

4ft SLR: A rise of 4ft and presumed location of mean sea level (MSL). Estimated timeframe is 70 years (2092 a.d.)



Under a scenario of 3 ft of sea level rise, which is predicted to become reality in about 80 years, NOAA models significant loss of estuarine shoreline in Nags Head. Elevated sea levels are shown in blue.

Reuse of Documents: This document, and the ideas and designs incorporated herein, as an instrument of Professional Service, is the property of Biohabitats, Inc. and is not to be used in whole or in part, for any other project without the written authorization of Biohabits

Key Management Challenges

Water quality, loss of marsh, land loss, and preserving the visual character are among the most important management challenges along Town's estuarine shore. Flood risk is compounded by the various sources of water: wind tide flooding that can occur when winds blow persistently in one direction for multiple days; storm surges creating major coastal flooding events caused by gales, northeasters, tropical storms, and hurricanes; and rainfall flooding exacerbated by higher tide elevations that reduce or block drainage.

Together with public opinion from a May 2022 survey, the data on existing conditions presented here confirms what The Town knows: the marsh is disappearing and Nags Head is losing land. In order to organize the potential solutions, this Plan uses a typological approach to categorize the type of existing conditions at any site. This typological approach allows us to link the solutions in the next section to the existing conditions as described here.

	Very Important (1)	Somewhat Important (2)	Neutral (3)	Not Very Important (4)	Not Important (5)	Weighted Average
Water Quality in the sound	28	8	0	0	0	1.22
Loss of marsh habitat	23	10	1	1	1	1.53
Land loss along the estuarine-shoreline	20	12	1	1	1	1.6
Preserve visual character of vegetated shoreline	18	14	2	1	0	1.6
Stormwater system over-whelmed in extreme events	12	20	0	1	0	1.70
Improving bulkheads/riprap	18	10	6	0	1	1.74
Providing recreational access	13	16	2	2	2	1.97
Flooding from the estuarine side	9	21	3	1	1	1.97
Turbulence from waves re-bounding from hard shoreline	12	15	5	2	1	2.00
Bridges/roads flooding or being blocked	9	16	6	1	1	2.06

Respondents to a public survey in May 2022 prioritized land loss and visual appearance & character as important management challenges.

Shoreline Typologies: Exposed, Hardened Conditions



EXPOSED, SOLID BULKHEAD STRUCTURES

- Slopes >33%
- **Absent Low Marsh Zone (LMZ)**
- Public, Private and Vacant ownership
- Wind Waves - Hs normal & storm
- Distance to infra. >30ft



EXPOSED RIPRAP

- Slopes 20-33 & >33%
- **Absent LMZ**
- Public & Private ownership
- Wind Waves - Hs storm
- Distance to infra. mixed



EXPOSED, SOLID BULKHEAD STRUCTURES WITH LOW MARSH ZONE

- Slopes >33%
- **LMZ > 6ft**
- Private ownership
- Wind Waves - Hs normal & storm
- Distance to infra. mixed

Shoreline Typologies: Exposed, Softer Edges



EXPOSED, FAILING, VEGETATIVE BANKS

- Slopes >33%
- LMZ > 6ft
- Public & Private ownership
- Wind Waves- Hs normal
- Distance to infra. >30ft



EXPOSED, LOW BANK & BEACHES

- Slopes <20%
- LMZ > 6ft
- Public & Private ownership
- Wind Waves- Hs normal & storm
- Distance to infra. >30ft



EXPOSED SALT & BRACKISH-WATER MARSHES

- Slopes <20%
- LMZ > 6ft
- Public, Private
- Wind Waves- Hs normal & storm
- Distance to infra. >30ft

Shoreline Typologies: Mixed Sheltered Conditions



SHELTERED, SOLID BULK-HEAD STRUCTURES

- Slopes >33%
- Absent LMZ
- Private ownership
- Sheltered from Wind Waves
- Distance to infra. mixed



SHELTERED RIPRAP

- Slopes >33%
- **Absent LMZ**
- Private, Vacant Private
- Sheltered from Wind Waves
- Distance to infra. >30ft



SHELTERED, VEGETATED LOW BANKS

- Slopes 20-33%
- **Absent LMZ**
- Private, Vacant Private
- Sheltered from Wind Waves
- Distance to infra. >30ft



SHELTERED, SCRUB-SHRUB/WETLANDS

- Slopes 20-33%
- **Absent LMZ**
- Private, Vacant Private
- Sheltered from Wind Waves
- Distance to infra. >30ft

RESTORING THE SHORE: SOLUTIONS

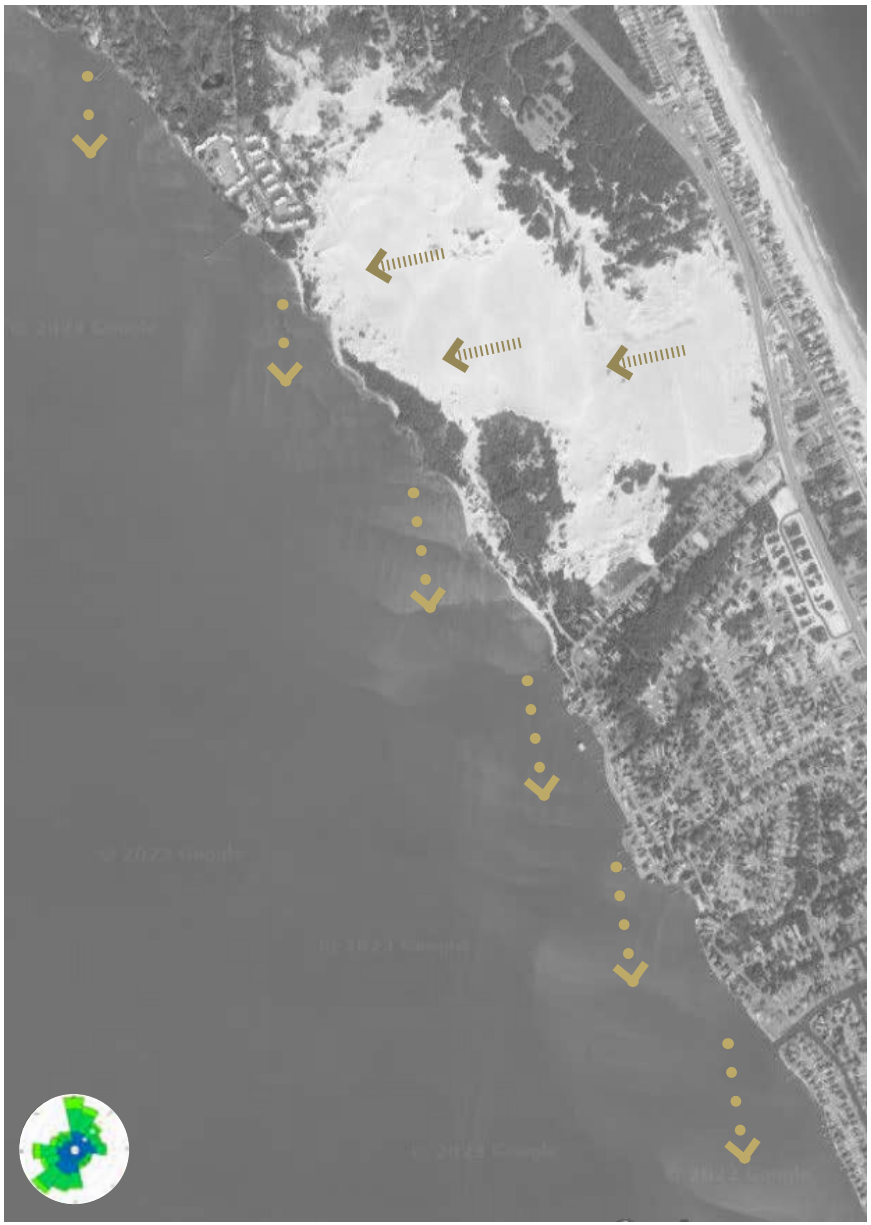


Thinking Big

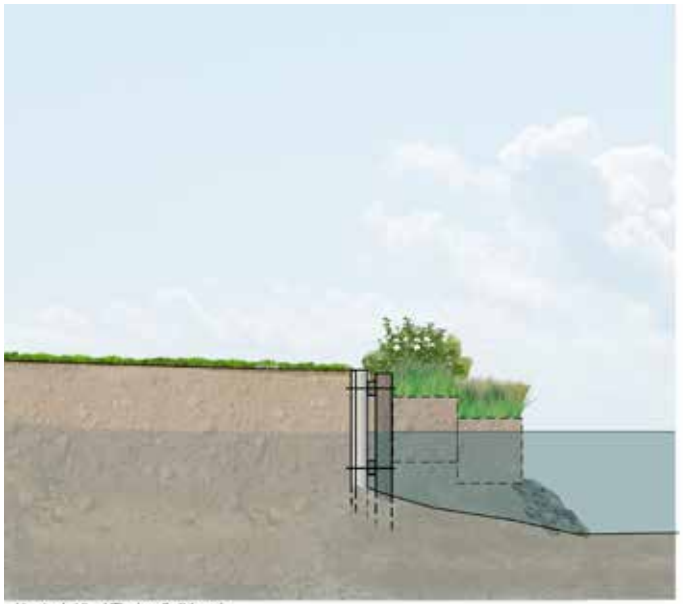
The large-scale processes such as upland water flow and overwash from the ocean that once fed sediment and sand into the barrier island system to build and maintain its form have been disrupted by human modifications of Nags Head. Therefore, there is a mismatch in the scale of the problem versus the solutions if we look only at management options whereby an individual landowner protects their own shoreline. Although a coordinated large-scale effort is daunting in terms of human collaboration, it may be the requisite response to the existential threat to the Town. Local conditions are favorable for interventions at scale, in part because we know there is a large-scale movement of sand and sediment along the estuary.

The primary plume of sand, originating from Jockey's Ridge, is observable in satellite imagery, while the sound's bathymetry also offers evidence of large-scale movement that settles in underwater ridges. However, it appears that the preponderance of the sand escapes down Croaton Sound or simply resuspends and resettles constantly. If this material can be harnessed and established with vegetation, the estuarine shoreline will be more resilient to future change and increasing severity and duration of storms. Therefore, while the menu of restorative approaches to estuarine management includes smaller-scale responses such as bulkheads and living shorelines, energetically evaluating the feasibility of coordinated action is the primary recommendation of this Plan.

Waves of Sand Present an Opportunity



Green Bulkhead Enhancements


Vertical - Vinyl/Timber Bulkhead

SUITABLE TYPOLOGIES

- Sheltered, Solid Bulkhead Structures
- Sheltered Riprap
- Exposed, Solid Bulkhead Structures
- Exposed Riprap

IMPORTANT FUNCTIONS

- Attenuation of wave energy
- Reduction of scour
- Habitat

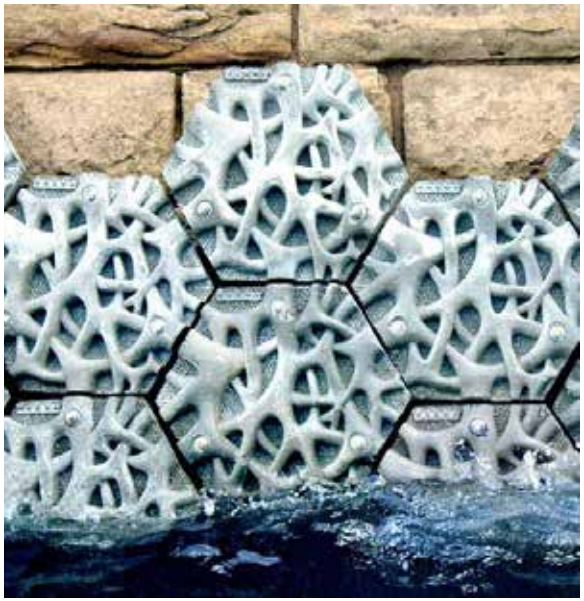
Where bulkheads have already been placed or are seen as preferential based on site limitations, design techniques can be utilized to soften their erosive and scouring impacts, while enhancing their ecosystem service value. A small scale and low-cost enhancement, such as Habitat Baskets or bulkhead façade treatments, attaches directly to the bulkhead face and adds habitat complexity. Wetland Baskets are another option that can be attached directly to the bulkhead structure. As pictured on the next page, this technique involves Hesco baskets, filled with a sand media and planted with wetland vegetation, to reestablish a wetland edge. Depending on site characteristics, the new wetland edge could reconnect the upland to the water's edge or just provide low marsh habitat. Intertidal Habitat Structures could be implemented within the intertidal zone along the base of the bulkhead (given suitable conditions), to disrupt and attenuate incoming wave energies, interrupt the typical scouring impacts, and provide habitat complexity within the intertidal zone.

Bulkheads with a riprap edge condition provides an opportunity for Vegetative Enhancement. This option aims to provide vegetative cover by installing sand media pockets within the aggregate for woody material, or establishing herbaceous cover through media import, seeded mat covers, or a combination of the two. The vegetative enhancement technique could be retrofitted into an existing riprap edge or added into the design of a new riprap edge installation. The above techniques are a vital component of a complete shoreline management strategy, because so much of the Town's estuarine shoreline has already been armored.

Green Bulkhead Enhancements



In this innovative Nature Conservancy project along Alabama's Fowl River, designers used gabion baskets attached to an existing, but failing, bulkhead. The bulkhead remained in place to save the cost of removal and reduce property loss. The gabion baskets were planted with native marsh grasses to create a tiered structure that mimics the slope of a natural shoreline.

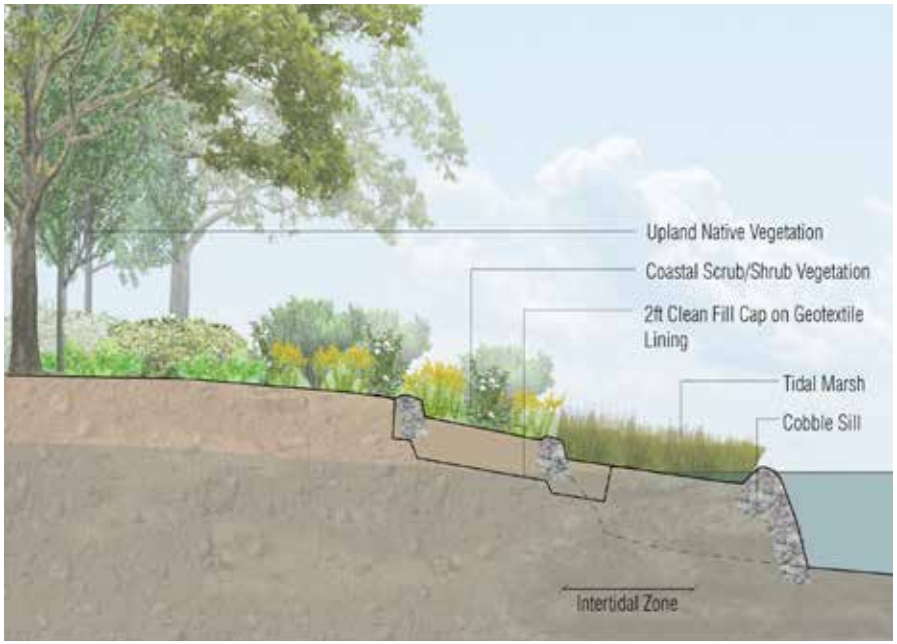




The least intrusive way to modify an existing bulkhead to improve its wave energy attenuation and habitat benefits is to affix materials with more complex structures to its face. The tiles at left offer a surface suitable for small marine organisms and larval shellfish. The EcoRap Living Seawall modules at right diminish rather than reflect wave energy. They also provide escape habitat for juvenile fish, which is a critical function of shallow nearshore habitats.

Resiliency Terraces

PROPOSED TREATMENTS









SUITABLE TYPOLOGIES

- Exposed Riprap
- Exposed Solid Bulkhead Structures with Low Marsh Zone
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed Low Bank and Beaches

Resiliency Terraces

Where space permits, an option to counter loss of shoreline protection is the use of terracing, which can allow for a limited amount of marsh migration and vegetative & habitat diversity. Suitable locations would offer a combination of horizontal depth from the existing shoreline and appropriate vertical height to be able to pull back the land and regrade into a more consistent slope. Terracing is a critical component that allows a flatter horizontal grade, while stepping up to meet the slope requirements. Migration ramps are graded in between the terraces to provide connection and migration potential between cells. The diagrams below show a barrier (retention feature) at every elevational change.

Resiliency terraces are a hybrid option in shoreline management and may be suited to places that have already been partially altered. They merge providing some of the stabilization benefits of bulkheads with some habitat value and managed plantings.

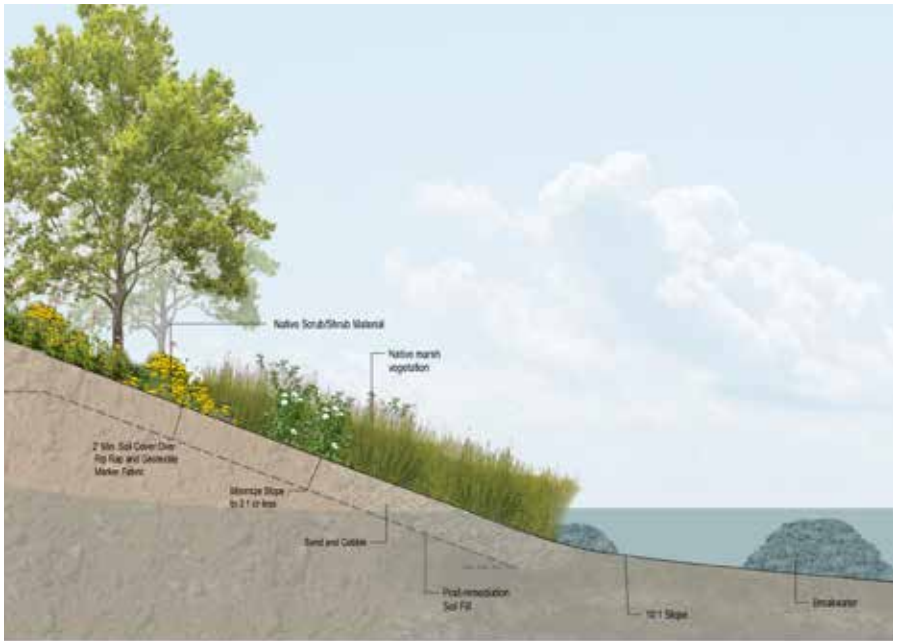
Living Shorelines

Living shoreline are a method of shoreline stabilization using plants and natural materials to reduce erosion and slow the wave energy associated with storms. Rather than creating a barrier between the shore and water, as with conventional bulkheads and seawalls, a living shoreline allows for a natural transition. The shoreline can thus provide erosion protection while still performing valuable ecosystem services and maintaining aesthetic character.

One of the best examples of a living shoreline in North Carolina protects the shore and is accreting land just off of Jockey's Ridge. The Coastal Federation and NC State Park have created a design that traps the material eroding from the dune, restoring eroded shoreline.

Living Shorelines

PROPOSED TREATMENTS







SUITABLE TYPOLOGIES

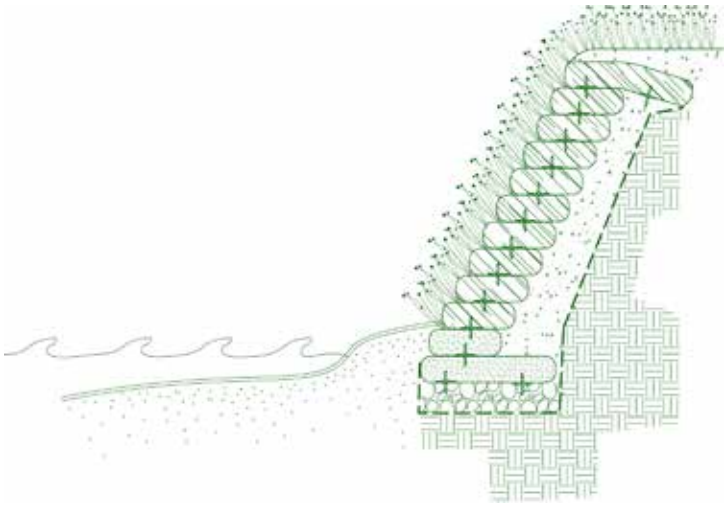
- Exposed, Solid Bulkhead Structures with Low Marsh Zone
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed, Low Banks & Beaches



Geotextile Tubes

PROPOSED TREATMENTS

Strong geotextiles filled with local material have been used for shore protection in several different configurations (Lim and Siew 2022). In sheltered locations with natural shorelines, they can reduce erosion in a function similar to bulkheads with moderately more energy absorption and less rebound. Without an offshore wavebreak component, such systems cannot diffuse much wave energy and can degrade in extreme events. Some vendors sell systems designed to recruit vegetation that will continue to stabilize shorelines over time, which can be effective with sufficient sunlight.

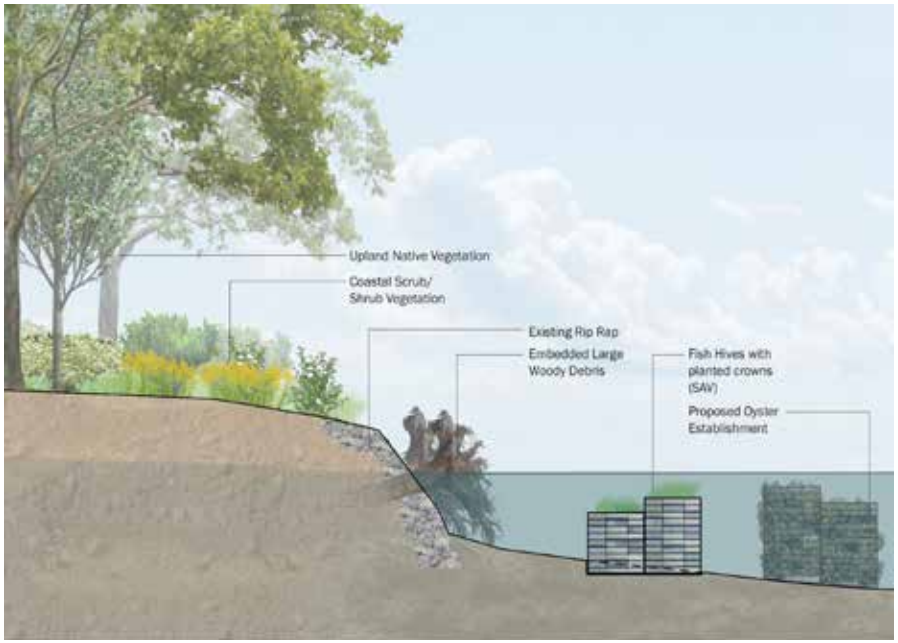




Envirolok's geobag system is designed to stabilize shorelines that do not experience extreme wave energy and allow plant recruitment. Installed on Kiawah Island, SC at right. Images:Envirolok

Embedded Large Woody Debris

PROPOSED TREATMENTS









SUITABLE TYPOLOGIES

- Exposed Riprap
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed, Low Bank and Beaches

Embedded Large Woody Debris

An extension of the living shoreline concept, this approach uses natural materials to enhance habitat complexity and nutrient cycling. It is particularly noteworthy in places such as Nags Head, where the oysters that are often key to living shoreline design cannot thrive. If installed below the mean sea level, the consistent saturation of the woody material limits aerobic decomposition and allows the structures to remain for many decades.

Another benefit of this type of approach is the diversion of woody material from the landfill or other waste facilities. If coupled with a site clearing project, where trees and woody material are removed, much of the material can be supplied for minimal cost. The stockpiling of Christmas trees for use in these structures is an ideal application because of the dense branching matrix and smaller size, which facilitates placement by volunteers.

Reef Balls and Oyster Alternatives

Oyster reefs are the natural model for the small-scale breakwaters required by living shorelines. Breakwater alternatives that are not dependent on oysters such as Reef Balls or ECOncrete products are widely used in places like Nags Head where oysters do not thrive. Since these materials and designs began to be adopted more broadly, there has been a substantive body of literature developed on anchoring them securely through intense storms while making sure that breakwater designs are compatible with recreational boating and other popular water sports. Since good designs attract fish, they tend to be popular with anglers. Such materials can be deployed in Nags Heads's estuarine shore (e.g. Harvey Event Site concept, p 42).



Paddleboarding over reef balls in Turks & Caicos, credit: reefbeach.com.

Open-Water Design Strategies: Breakwaters Reimagined

Working on large-scale modifications and living breakwaters out in the open water zone is a more ambitious and holistic effort to respond to the scale of the disrupted processes and seek to restore more natural habitat to the sound. These strategies can be implemented together with the forgoing, smaller-scale solutions focused on the shoreline itself.

Living breakwater creation involves the placement of material offshore to create islands with engineered hardened edges to protect against erosion, while simultaneously acting as a wave break for the shoreline. The landward facing edges of these structures can be designed to establish heterogeneous marsh habitat zones that are not subject to high fetch wave impacts. Location of submerged habitats, including Submerged Aquatic Vegetation (SAV) and mussel colonies, is critical to survey for final island placement.

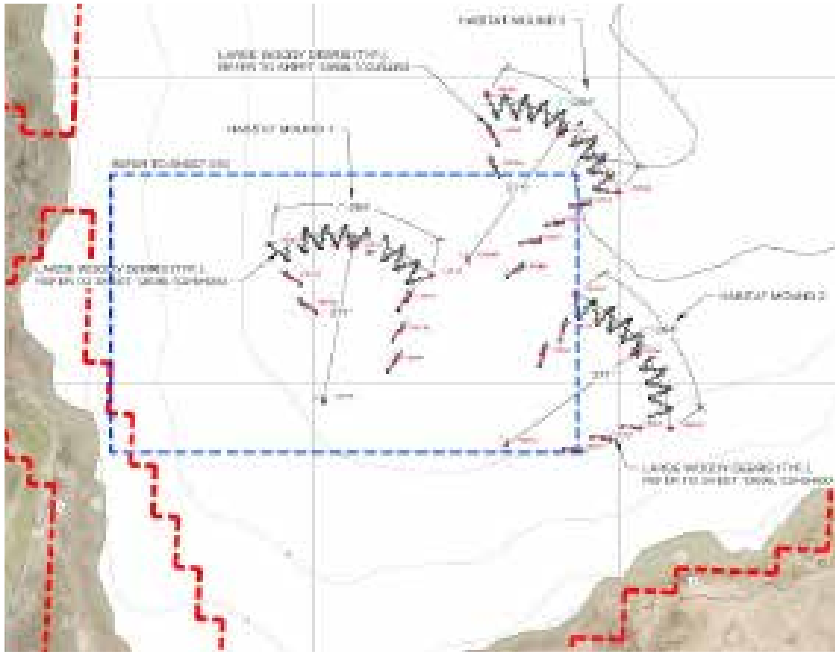
These living breakwater structures can also be incorporated in a systems thinking approach, whereby sediment flows can be harnessed for land building. Orientation of the islands along the predominant/seasonal sediment flows can encourage the deposition of this material in selective areas. Sediment accumulation could potentially support and expand the breakwater islands or contribute material to the waters between the island structures and the Town shoreline.

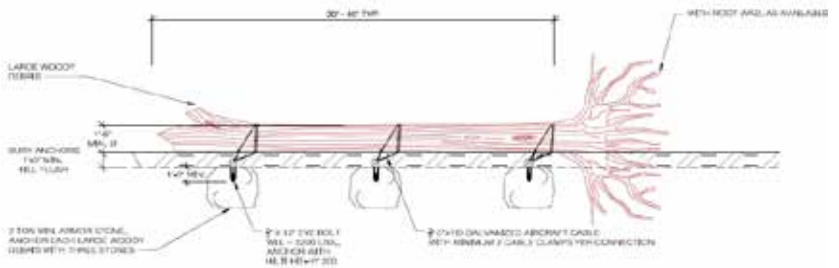


NC State's Coastal Dynamics Design Lab developed renderings of living breakwaters for Nags Head's Estuarine Shoreline. Like the concepts in this plan, these concepts used reef balls rather than oysters, which cannot thrive in Roanoke Sound's low salinity. Credit: NCSU Coastal Dynamics

Open-Water Design Strategies: Breakwaters Reimagined

PROPOSED TREATMENTS











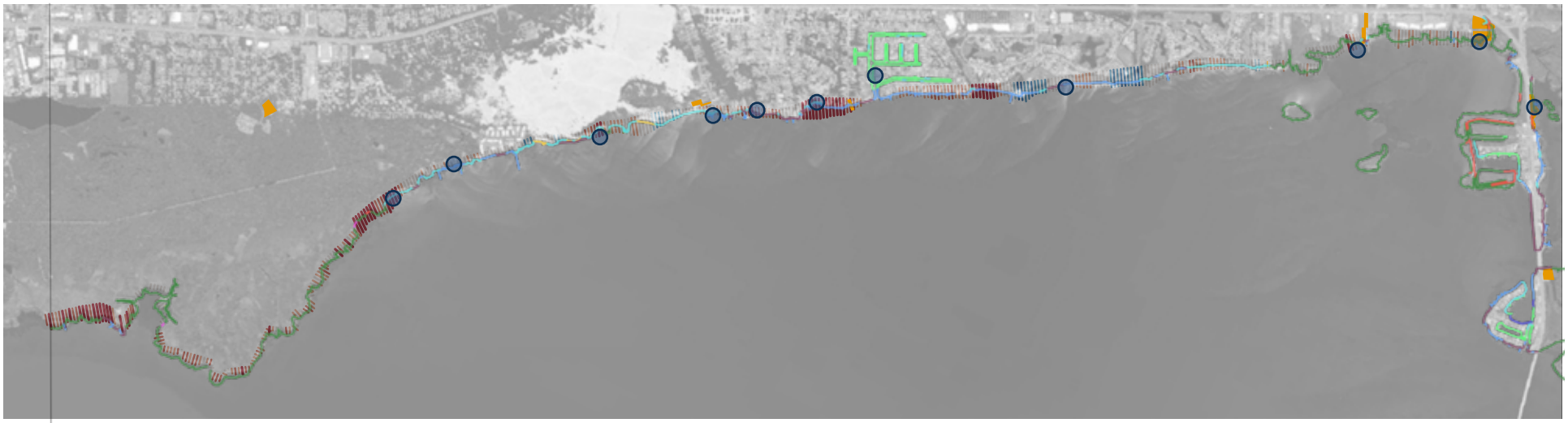
Images courteous of the City of Virginia Beach & Ducks Unlimited



PILOT SITE CONCEPTS

Pilot Site Selection

In August of 2022, Town staff, the Advisory Committee, and the Technical Partners worked through a prioritization exercise centered around 11 potential sites that varied by location, ownership, physical characters, and modification history. A survey was deployed to solicit input from those unable to attend the workshop. After examining the ranked selection criteria and collecting feedback on the menu of solutions, the planning team decided to prioritize large-scale and holistic approaches at three sites, some of which encompassed more than one of the 11 indicated by blue circle in the figure below.



Nags Head Woods and Villa Dunes Drive

CHALLENGE

The first concept site encompasses two distinctly different typological conditions: Steep, highly eroded banks and Exposed bulkhead structures with and without low marsh zone. In this higher-energy, northernmost site, erosion is advancing rapidly and threatening a Town owned residential road (Villa Dunes Drive) perched on a steep, eroding bluff in Nags Head Woods. The Town has moved the road in the Eastward direction two times in order to protect its integrity. The area is a dedicated nature preserve, and home to an old growth stand of Live oak, Atlantic red cedar, American holly and American beech. Residents remember swinging on ropes from the pictured Live oak tree, which collapsed into the water as the bluff eroded. Just to the South, residential properties dot the shoreline and have approached erosion and land loss with a variety of bulkheads and strategies but are keenly interested in a collaborative approach.

PROPOSED APPROACH

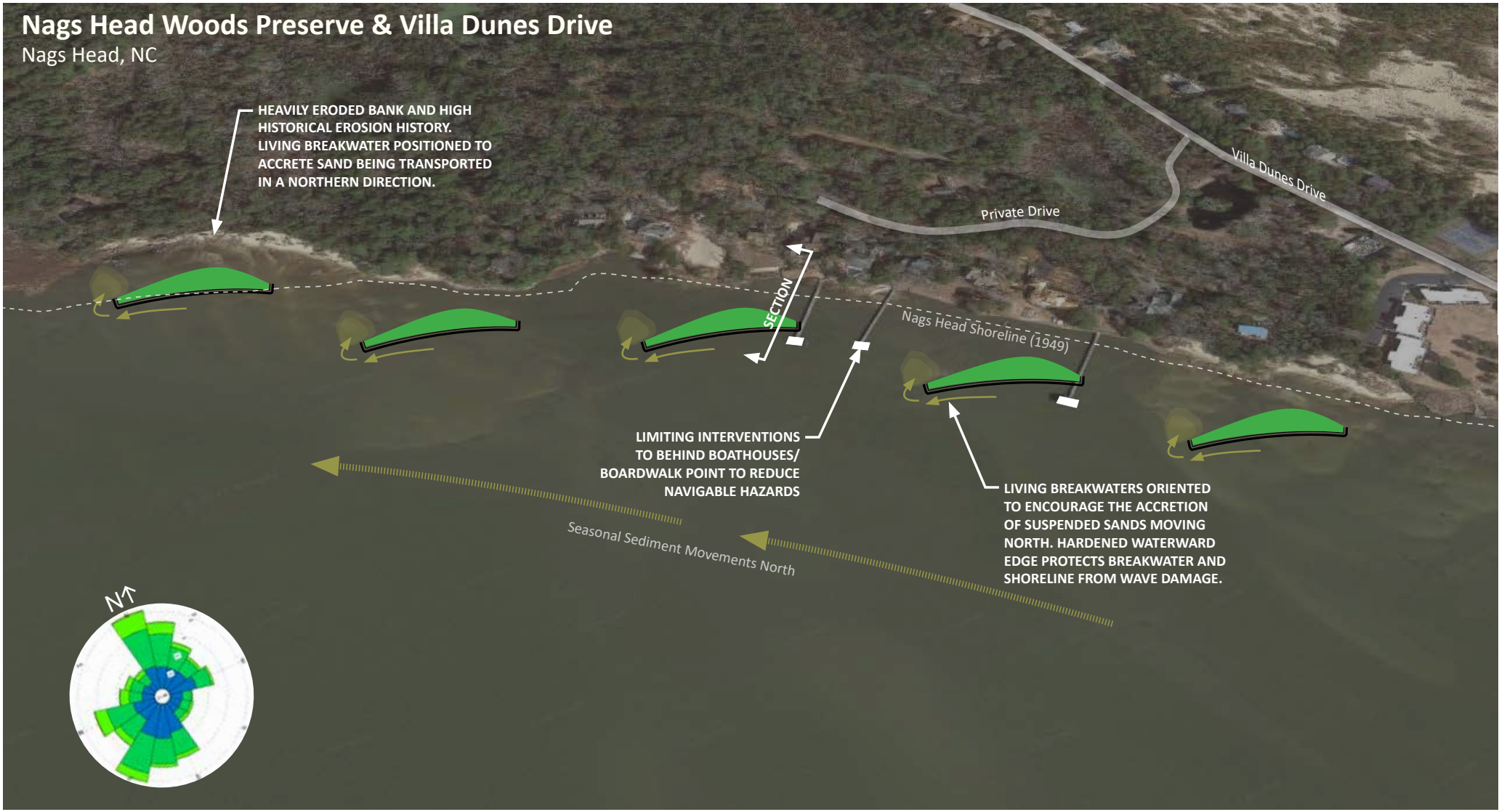
The core element of this pilot site is a series of Living Breakwaters that can provide a multi-faceted, nature-based approach for the Town. Positioned a minimum one hundred feet offshore, the living breakwater structures have a sound facing hardened edge and a softer, low slope landward facing side for marsh/habitat establishment. Although these structures will be placed within the viewshed, the landward facing marsh edge will be the primary viewpoint and not the hardened edge. The breakwater structures are limited in location by the private docks and will only occur landward of the dock extents to minimize navigational hazards.

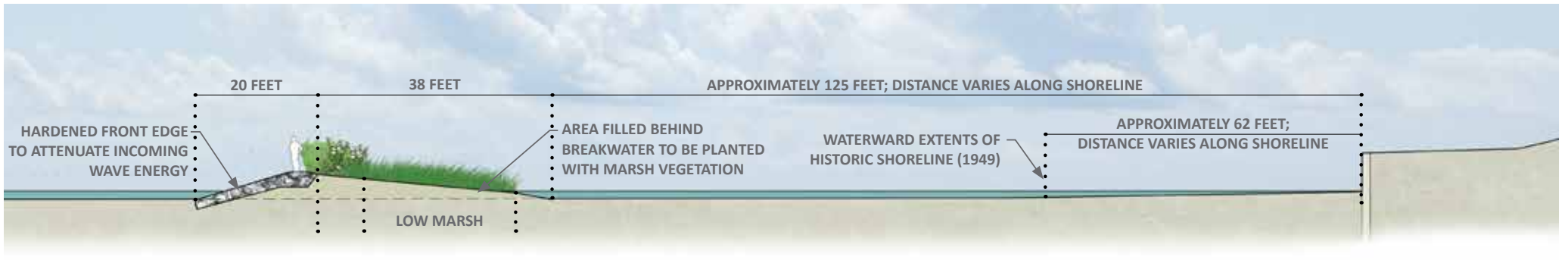
Additionally, seasonal sediment flows, originating at Jockey's Ridge and moving in the northern direction, have been observed. Placement of these breakwater structures along this sediment flow pathway anticipates an accumulation of this material along the breakwater edges. Over time, this may result in sand bar formations that could provide habitat or further contribute sand material into the littoral zone. Along with providing the necessary protection from wave energy, the Living Breakwater provides ecological, recreational, and economic benefits, including:

- Engineered rock formations provide escape and refuge for fish
- Concrete-coated material encourages colonization by marine organisms
- Sediment or dredge material can be beneficially used to enhance protection and habitat
- Landward facing, tidal wetlands provide shelter for crabs, shrimp and fish larvae, and marsh birds
- Birding, nature education, kayaking & canoing, stewardship
- Woody debris aggradation structures could be used to encourage sand accumulation

Nags Head Woods Preserve & Villa Dunes Drive

Nags Head, NC





West Soundside Road

CHALLENGE

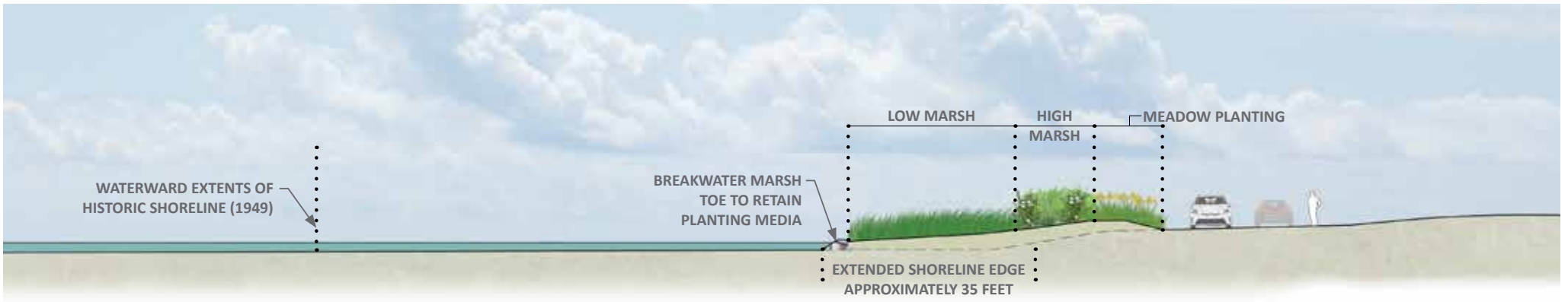
Challenge: This priority site for Town stormwater management has a mix of shoreline conditions and homeowner/municipal strategies to prevent further erosion. The Town owns a stormwater discharge point to the South of the state park. The Town owned neighborhood access road (West Soundside Road) is under constant threat from erosion and flooding. A riprap edge along the right-of-way was installed to offset any additional shoreline losses; however, the roadway is frequently flooded during storm events due to a low roadway elevation. Frequent private docks hamper the ability to work offshore and raise concerns about navigation and access needs.

PROPOSED APPROACH

Along this complex stretch of shoreline, the proposed solutions blend the living breakwater approach where there is adequate space, with shoreline conversion from a hardened edge condition to one that provides stability and vegetation/habitat value. This stretch of shoreline is located south of Jockey's Ridge and, like the Nags Head Woods concept, is designed to harness the seasonal (southerly) sand flows using the Living Breakwaters. The breakwater structures are limited in location by the private docks and will only occur landward of the dock extents to minimize navigational hazards.

The areas that are reinforced with a riprap embankment will be converted (resiliency terracing) to a softer condition that can resist erosion, while providing habitat value. When applicable, material will be imported to extend the shoreline waterward and armored on the front edge with the stone aggregate. Multiple terrace plateaus to provide low slope heterogeneous habitat zones. Riser retention structures separate plateaus, while media ramp connections allow for migration between cells. In cases where stormdrain outfalls cause a conflict, either the resiliency terrace will be shortened, or the outfall infrastructure will be extended to meet terrace front edge.


West Soundside Road
Nags Head, NC
South Croatan Highway
West Deering Street
RIPRAP SHORELINE PROTECTION TO BE REUSED AS FRONT EDGE PROTECTION. WIDTH TO INFRASTRUCTURE TO BE EXPANDED TO ESTABLISH TRANSITIONAL HABITAT PROTECTION
West Soundside Road
SECTION
SHORELINE STRETCH WITH HIGHEST EROSIONAL HISTORY. LIVING BREAKWATER ORIENTED TO ACCRETE SAND IN AREA HARDEST HIT BY EROSION.
LIVING BREAKWATERS ORIENTED TO ENCOURAGE THE ACCRETION OF SUSPENDED SANDS MOVING SOUTH. HARDENED WATERWARD EDGE PROTECTS BREAKWATER AND SHORELINE FROM WAVE DAMAGE.
LARGE SCALE MOVES ADDRESS MULTIPLE PROPERTIES, HOWEVER INDIVIDUAL SITES HAVE TOOLKIT OPTIONS TO ENHANCE THEIR SHORELINE
N
Seasonal Sediment Movements South
Nags Head Shoreline (1949)
LIMITING INTERVENTIONS TO BEHIND BOATHOUSES/ BOARDWALK POINT TO REDUCE NAVIGABLE HAZARDS


LOW MARSH
HIGH MARSH
MEADOW PLANTING
WATERWARD EXTENTS OF HISTORIC SHORELINE (1949)
BREAKWATER MARSH TOE TO RETAIN PLANTING MEDIA
EXTENDED SHORELINE EDGE APPROXIMATELY 35 FEET

Harvey Sound Access

CHALLENGE

Because they are publicly owned, the event site that is shared by Dare County Tourism Board and the Town of Nags Head and the adjacent Town-owned Harvey site may be the logical first project to pursue. A new boardwalk network and upland pathway enhancement has been proposed for the area, by the Dare County Tourism Board, the major owner of the Event Site parcel. There are existing issues on site that include unregulated water access and trampling of the marsh leading to erosion, as well as some stormwater drainage impacts that appear to be hastening erosion. In addition, the eroding marsh adjacent to a local restaurant (Miller's Waterfront Restaurant) has been used for informal boat parking for patrons. Although this may hasten erosion, it is a cherished feature of the restaurant for many.

PROPOSED APPROACH

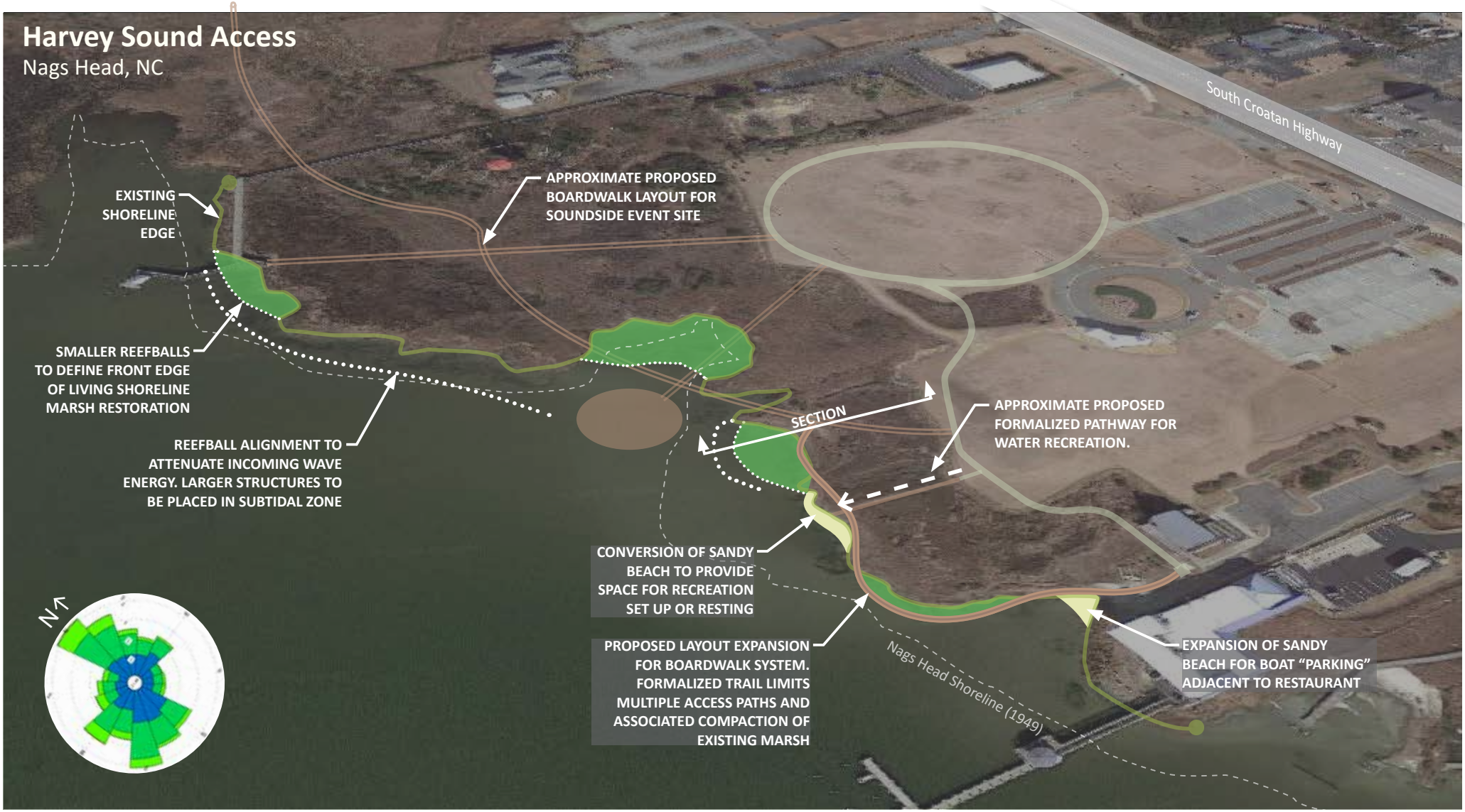
At this site, where public access is a critical feature, the management goals are to balance the availability of public access with restoring and sustaining a healthy marsh habitat. To accommodate this, a new boardwalk pathway that runs along the shoreline and connects the proposed boardwalk network plan with the Harvey Sound Park and Miller's Waterfront Restaurant. A portion of the shoreline will be converted to a sandy beach to facilitate access, setup, and resting space for kite boarders and will be accessed via the new boardwalk connection. Even though the boardwalk is running along the shoreline, it can provide wetland benefits by attenuating incoming wave energy that accelerates erosion, in addition to reducing human compaction along the wetland edge. A final element will be the expansion of the sandy beach used for informal boat parking.

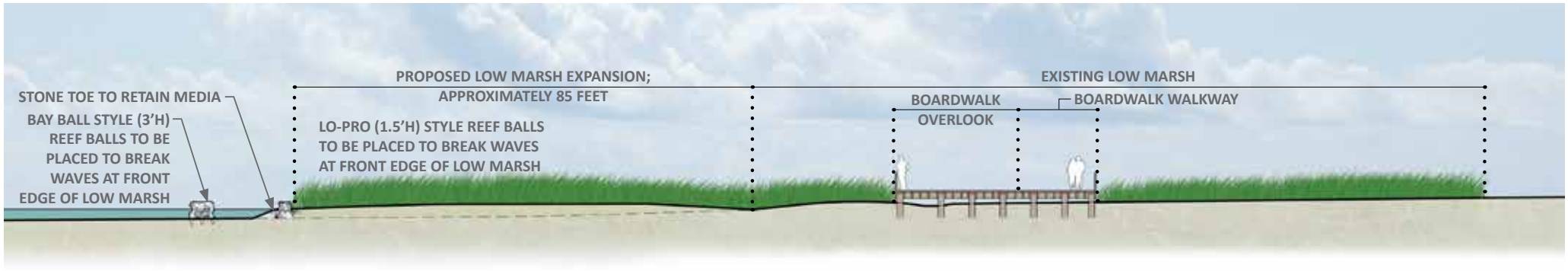
Several wetland areas along the shoreline have receded due to erosion and will be targeted for wetland restoration. Establishing a living shoreline will involve the import of fill material to achieve the desired elevations needed for marsh establishment. The design will implement a stone sill to retain the fill material, as well as wave attenuation structures, proposed as two different reef ball sizes, to protect against wave generated erosion and help potentially accumulate sand behind the structures.

A complex, highly visible restoration and access project here would also provide an opportunity for education and interpretation ranging from signage for visitors to interactive programs with local schools.

Harvey Sound Access

Nags Head, NC





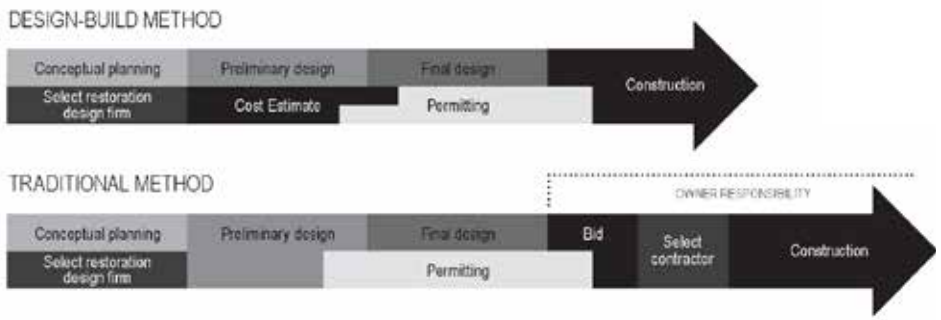

IMPLEMENTATION

Implementation: Data & Design Process

WHERE WE ARE AND WHERE TO GO

This Plan provides an overview of the threats and considerations for the Town's estuarine shoreline management, gives a menu of shoreline treatment options, and elevates three pilot sites where large-scale interventions could be facilitated by the Town. The pilot site concepts and supporting materials provide a strong basis for marshalling the resources and writing grants to move into the next phase of work. Once funding is secured, approved concepts can advance to the design phase, which will require additional site-specific detail and data collection, local wave energy models, survey, and some additional measurement of the key system parameters such as seasonal variation and local sediment load. The design phase will answer several of the questions posed here: exactly how much will it cost to build? What elements of the concept should be modified to obtain permits?

For smaller-scale treatments, such as a single-owner living shoreline applications, the permitting pathway may be straightforward or allow a design-build approach (see diagram) where the permits are obtained by the contractors who finalize the design and take responsibility for construction. A traditional design-bid-build delivery method will be required for large and complex projects as outlined for the pilot sites, where design process is long and may need to be adjusted to meet permitting requirements.



In November 2022, the Town requested a scoping meeting with multiple regulatory agencies to share the fundamental apporach of the ESMP and review their concerns about advancing the projects. Key items of feedback included:

- the Town should lead a joint application for permitting and the important coordination among property owners,
- riparian and navigational rights must be secure,
- carefully consider sill material, shellfish harvest, and plant material, and
- projects should minimize damage to protected submerged aquatic vegetation.

Implementation: Funding

COST ESTIMATES FOR COMPARABLE PROJECTS

Funding is a key factor in advancing any of the concepts or solutions in this plan, and estimates are difficult to produce because they vary widely by designer and inflation has destroyed the usefulness of previous experience. Additional local factors such as delivery of material to a site and ability to work from shore or barge can vary widely. For example, recent estimates for just the rock breakwaters for living shoreline range 300% from $500-1500/linear foot.

Nevertheless, we can be certian that this is a propitious time for large-scale coastal protection efforts, with new local resilience funding coming online every year. Unfortunately there are also more municipalities competing for those funds than ever before. A coordinated plan and wide public support are competitive advantages in the funding landscape, as are nature-based solutions and innovative strategies.



Permitting

PERMITTING CONSIDERATIONS FOR ESMP

The NC Division of Coastal Management carries out the state's Coastal Area Management Act (CAMA), the Dredge and Fill Law in North Carolina's 20 coastal counties. They make permit decisions after considering agency and public comments, and after determining whether a proposed project meets CRC rules and the enforceable policies of the local government's land-use plan.

The CAMA permit system is divided into major and minor permits. Major permits are necessary for activities that require other state or federal permits. Applications for major permits are reviewed by up to 10 state and four federal agencies before a decision is made. ESMP projects could also fall under general permits, which involve less agency scrutiny and are for less complicated and more repetitive types of projects.

Management Technique	Additional Information	Permitting*
Living Shorelines	• Allows natural connections between aquatic environment and adjacent upland; preserves tidal exchange, sediment conservation, allows for marsh migration. • Best for medium/low energy shorelines.	General Permit • Streamlined permits for routine projects. • Issued by DCM field staff • Permit issuance averages 5-14 days • Projects that exceed general permit use standards may still be permitted through Major Permit process.
Bulkheads/Sea Wall	Hard armoring of the shoreline. • A wall is created at the upland/marsh or upland/water interface and backfilled to raise upland. • Holds the shoreline, keeping it • static and may be best fit for high wave energy. • Can cause erosion on subject & neighboring property • Disrupt sediment movement and transport patterns.	General Permit • Streamlined permits for routine projects. • Issued by DCM field staff. • Permit issuance averages 5-14 days.
More complex projects that trigger additional permits	Serves as the application for other state and federal permits. • The dredging and filling of water and/or wetlands fall into this category. • DCM will issue a major permit if the project complies with the CRC's standards for development in AECs, the local CAMA land use plan, and local development regulation.	Major Permit • NC DCM CAMA Major Permit. • Permit application reviewed by 10 state and 4 federal agencies, • involves DCM and USACE permit coordination. DCM provides coordination with other agencies on behalf of the applicant. • USACE can use their USACE Programmatic General Permit 291 for CAMA Major Permits. Permit issuance averages 75-90 days.

Considerations for Future Opportunities

RESOURCES AND NEEDS

As we look to the future of estuarine shoreline management for the Town of Nags Head, several considerations and steps rise to the fore. Distribution and dissemination of this document and its supporting materials is important to the secong goal of building public awareness of the risks to the current estuarine shoreline from sea level rise and storm events. The Town is acting to make this document widely available and present its findings at fora such as the North Carolina Beach and Inlet Waterway Association.

The National Fish and Wildlife Foundation, which funded this effort, has a funding structure designed to help communities work through a process that starts with plans, moves into design, and leads to implementation. In order to take advantage of the next opportunities, Nags Head will need to adopt the plan and open a conversation about staffing or match resources for future phases.

Building on the momentum of this work and the partnerships created will involve continuing to work with some of the key partners to understand data needs and fill gaps in our understanding. It will also mean starting to try to understand public sentiment on its proposed concepts. To position the town as a proactive leader with shovel-ready ideas and increase advantage in the funding competitions, the Town can begin to plan site-scale engineering and design development for sites of interest.

Finally, the Town and residents would benefit from a shared understanding of the regulatory opportunities around shoreline management, which are beyond the scope of this document. Widespread tools such as incentives for voluntary development setbacks, buffer regulations for estuarine shoreline properties, or bulkhead ordinances can be examined for feasibility and applicability in Nags Head.

Engagement Summary

ADVISORY COMMITTEE, TECHNICAL PARTNERS, AND PUBLIC INPUT

The Estuarine Shoreline Management Plan Advisory Committee was selected by the Board of Commissioners to represent resident, business owner, and land management interests along Nags Head's estuarine shoreline. They provided guidance and feedback to Town staff and the Consultant Team on the development of the Plan. A variety of stakeholder engagement methods solicited feedback from the advisory group on overall long-term goals for estuarine shoreline management, stakeholders that should be engaged, education and outreach opportunities, criteria for project prioritization, identifying future land use concerns, policy and land use objectives, and managing public access. Meeting in tandem with the Advisory Committee and upon occasion for special concept review, the technical partners included representation from Eastern Carolina University and the NC Coastal Federation.

INPUT TIMELINE

- 5 advsory committee meetings at plan development milestones
- May 2022: Initial public survey
- August 2022: Public workshop & survey II for pilot site selection
- Draft Plan Review & Adoption

ADVISORY COMMITTEE MEMBERS

Ralph Buxton

Adnan Jalil

Randy Blanton

Robert Netsch

Louisa Farr

Ann Daisey

Cola Vaughan

Molly Harrison

Mike Kelly

Mike O'Steen

Bob Sanders, BOC Liaison

Reide Corbett, ECU

Lora Eddy, TNC

Aaron McCall, TNC

John Mebane, The Links

Joy Greenwood, Jockey's Ridge State Park

Lee Nettles, OB Visitors Bureau

Diane Bognich, OB Visitors Bureau

Literature Cited

Bamber, J. L., and W. P. Aspinall. 2013. An expert judgment assessment of future sea level rise from the ice sheets. Nature Climate Change 3: 424-427.

Deaton, A.S., W.S. Chappell, K. Hart, J. O'Neal, B. Boutin. 2010. North Carolina Coastal Habitat Protection Plan. North Carolina Department of Environment and Natural Resources. Division of Marine Fisheries, NC. 639 pp.

Kopp, Robert E., Radley M. Horton, Christopher M. Little, Jerry X. Mitrovica, Michael Oppenheimer, D. J. Rasmussen, Benjamin H. Strauss, and Claudia Tebaldi. 2014. Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites. Earth's Future 2: 383-406.

Kopp, Robert E., Robert M. DeConto, Daniel A. Bader, Carling C. Hay, Radley M. Horton, Scott Kulp, Michael Oppenheimer, David Pollard, and Benjamin H. Strauss. 2017. Evolving Understanding of Antarctic Ice-Sheet Physics and Ambiguity in Probabilistic Sea-Level Projections. Earth's Future 5: 1217-1233.

Lim, A.L. and Siew, K.H., 2022. Geotextile Tube for Coastal Protection and Land Reclamation. In Scour-and Erosion-Related Issues (pp. 95-116). Springer, Singapore.

Miller, J.K., Kerr, L. and Bredes, A., 2022. Living Shorelines Engineering Guidelines 2022 Update. Stevens institute of technology, prepared for NJ Department of Environmental Protection.

Sun, F. and Carson, R.T., 2020. Coastal wetlands reduce property damage during tropical cyclones. Proceedings of the National Academy of Sciences, 117(11), pp.5719-5725.



Photo Credit: villagerealtyobx.com

AGENDA ITEM SUMMARY

Town of Nags Head Planning Board
REGULAR SESSION: February 17, 2026

AGENDA ITEM H.3.

Update on Commercial Outdoor Recreation Overlay District

Prepared by	Reviewed by
Lily Nieberding, Permitting Coordinator	Lily Nieberding Lily Nieberding

Staff Comments/Recommendation

Specific Action Requested

None

Summary

Staff first provided the Planning Board with a presentation on the Commercial Outdoor Recreation Zoning Overlay District (CORD) at their March 18, 2025 meeting. Discussion of the CORD as a planning initiative stems from the Town of Nags Head's 2024 Strategic Plan. The strategic plan serves as a guiding framework for the community, directing the prioritization of initiatives, allocation of resources, establishment of goals, and implementation of departmental operations and projects.

The Strategic Plan is organized around four key focus areas: Environment, Development, Economy, and Community Services. Within the Development goal, several objectives and action items are outlined to promote thoughtful and sustainable growth. One such action item, Strategic Plan Action Item 2.2, calls for the identification and resolution of land use incompatibility throughout the town, ensuring alignment between the Comprehensive Plan and the Unified Development Ordinance (UDO). Specifically, Item D under Action Item 2.2 directs the Town to "examine the allowable uses within the Commercial Outdoor Recreation District".

Development



Goal: To achieve responsible, adaptive development that aligns with our community vision.

Objective #1:	Objective #2:	Objective #3:	Objective #4:
Proactively balance appropriate types of land uses	Ensure resilient development and infrastructure	Ensure public spaces are preserved and maintained equitably	Ensure efficient traffic movement and pedestrian safety

Action Items:

#	Action	Related Objective(s)
2.1	Apply for a grant to place conservation easements on Town-owned properties (ensuring equitable access)	#3
2.2	Identify and correct areas of land use incompatibility within the town; correct inconsistencies between the Comprehensive Plan and the Unified Development Ordinance. (i.e. this involves eliminating land uses permitted within a zoning district but may not be compatible with existing development and/or the future development plan as described in the Comprehensive Plan). Items to consider: a. Revisit the appropriateness of the Hotel Overlay District b. Identify areas where the zoning designation and existing development patterns may not be aligned c. Examine Beach Road vs US 158 uses (Corridors Character Area) d. Examine the allowable uses within the Commercial Outdoor Recreation District	#1

Staff prepared an Existing Conditions Report for the Commercial Outdoor Recreation Overlay District (CORD), providing a comprehensive overview of the district's location, background, and purpose. The report highlights relevant guidance from the Comprehensive Land Use Plan, with particular attention to the Whalebone Character Area and the Soundside Activity Node. The report considers insights from key planning documents, including the Beach Road Plan, 2023 Pedestrian Plan, and US 158 Access Management Plan. Additionally, the report outlines existing regulatory requirements within the Unified Development Ordinance (UDO), along with an analysis and preliminary staff recommendations for potential revisions.

The report was provided to Planning Board members via email on Friday, March 28, 2025, and is included as an attachment to this staff report.

April 2025 Update

Discussion:

- Do you think the current uses in the CORD reflect the original intent of the district? Should we consider refining the allowable uses to encourage more of the desired development, less of those uses that deemed undesirable? Yes, the current uses reflect the original intent and yes, we should consider refining the allowable uses to ensure development continues to align with the goals of the Comprehensive Plan.

- In what ways does the current mix of uses contribute to or detract from the character of the Soundside Activity Node and the goals in the Comprehensive Plan? The existing mix of uses contribute to the character of the Soundside Activity Node with a mix of outdoor recreation, retail, public access/soundside event center in the area. Long-term preservation of the uses is important.

- Is the purpose of the overlay district still relevant today, or should it evolve to reflect broader goals? The purpose of the overlay district is relevant, and it should evolve to reflect broader goals.

- Are there any specific uses or development patterns that feel out of place or inconsistent with the vision/intent for this area? General sense that the uses and development patterns are desirable but need to make sure this mix is sustainted.

- Would you support allowing more flexibility in development (like multiple principals uses or accessory residential units) to encourage reinvestment while preserving the outdoor recreation character? Yes.

- What walkability improvements (paths, connections, crosswalks, public art) would make this area more attractive or better connected to nearby destinations like Jennette's Pier or Whalebone Junction? Continue to make safe. Consider crosswalks or elevated pedestrian walkway across US 158. Consider better signage for motorists to be aware of pedestrians/traffic lights. Continue to pursue US 158 Redesign in STIP. Continue to pursue funding for the existing pedestrian plan. Consider area for public art.

Key Points from April Discussion of CORD Report

1. Support existing businesses by allowing flexibility and expansion of uses.
2. Support current mix of uses by removing some C2 uses from the CORD.
3. Manage heights and development to keep the Sound visible and accessible.
4. The area has the potential to be the second major activity area/counterweight for seasonal tourists besides going to the beach.

A. Improve Wayfinding

i. Kiosks
ii. Pavement signage
iii. Maps
iv. Signage for motorists
v. Hiking, biking, trail information, distance posting
vi. Website

B. Improve sense of place. It Should Feel Like a Place.

- Install public art
- Improve the areas branding "not CORD" …"park once play all day"
- Increase vegetation/shrubbery
- Reduce Vehicle speeds-
  - advocate for 45mph zone
  - consider traffic light ahead warning signs additions

C. Improve infrastructure

- Improve pedestrian and bicycle connections between disconnected destinations.

- Improve connection between Soundside and Whalebone Activity Nodes
- Make the area safer for bikes including places to park and safe areas to ride.
- Consider the reality of golf carts and ebikes increased usage and develop policies/supportive infrastructure for them.
- Charging stations

Action Items:

1. Consider amending the CORD to add new accessory uses to existing CORD overlay and mixed-use options (yellow and green highlights in the table of the CORD Report starting on page 18).

2. Maintain existing 35-foot height limitation and pursue the removal of the Hotel Overlay, dependent on state general assembly repeal of S.B 382. This would result in no longer allowing increased heights of 60 feet for hotel development in this area.

3. A. Develop a wayfinding action plan for the area and implement.

B: Improve sense of place. It Should Feel Like a Place

- Work with the Arts and Culture Committee to consider art installations, murals etc.
- Consider new brand development- work with businesses to create a theme, slogan, logo, website, social media presence and marketing strategy. Must also find funding source and administrative support to implement.
- Work with NCDOT and the Tourism Board and business owners to develop landscaping that is cohesive, low maintenance, doesn't block views of the Sound but also helps improve the bare highway commercial aesthetic.
- Work with NCDOT to consider viable changes to improve pedestrian safety and perception of safety. Reduce accidents in the corridor and severity of accidents.

C: Improve infrastructure

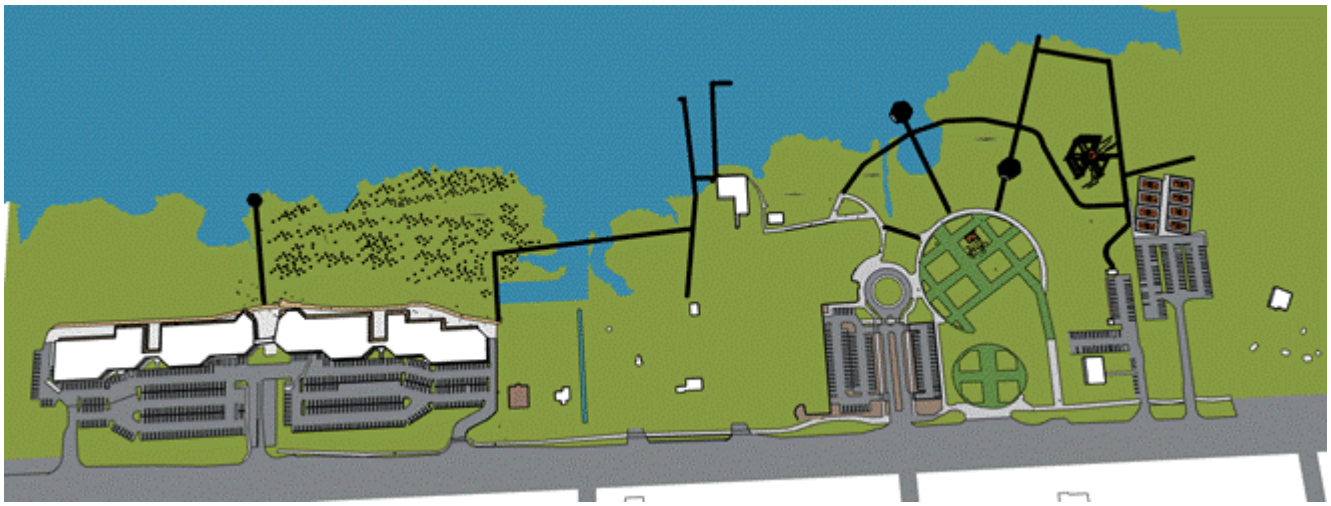
- Implement Pedestrian Plan. Update the future plan with the CORD connectivity in mind.
- Improve connection between Soundside and Whalebone Activity Nodes via crosswalks, US 158 Access Management project implementation, and maybe someday a pedestrian bridge.
- Add bike parking and bike friendly markings and signage.
- Provide information on golf carts/low speed vehicles and e-bikes on appropriate speeds and locations for usage

May 2025 Update

During the May meeting, staff synthesized Planning Board discussion into action items. The Planning Board advised that items need to be prioritized at the following meeting and that the focus should be on items that can be accomplished. The Planning Board also asked for public input and believed that we should look to get the public involved and get some feedback.

July 2025 Update

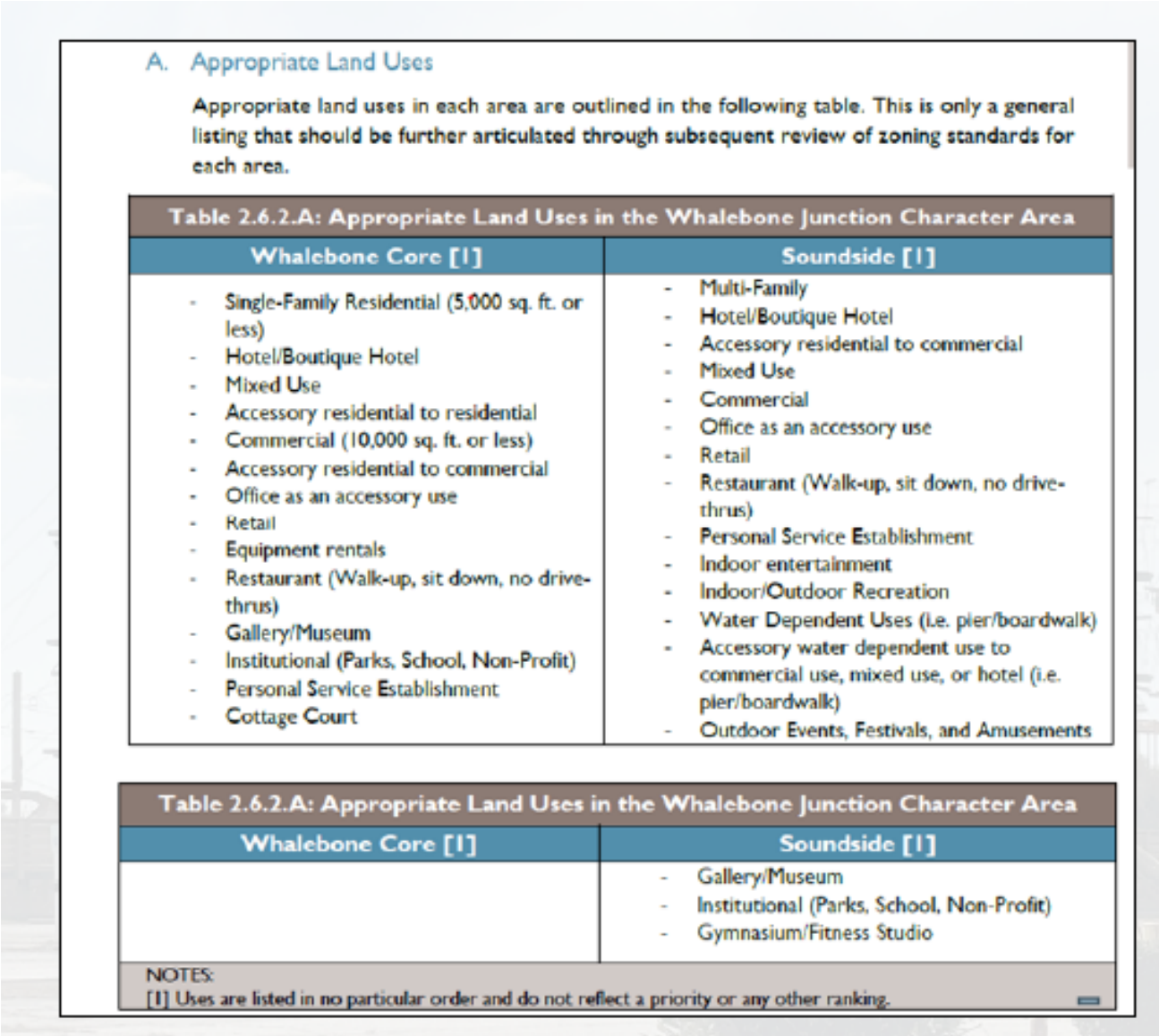
Staff has developed a to-scale 3d model of the area to aid in visualizing future development of a boardwalk and changes to existing structures and land uses within the area. Staff developed an animation that incorporates the discussed elements and recommendations for the area to guide further discussion and to provide a vision of development for the area.



Updated CORD Priority List from the July Meeting

1. Support the extension of the boardwalk to connect to the outlets.

2. Change zoning to increase flexibility of uses within the CORD but don't remove any incompatible uses given our inability to do so.



A. Appropriate Land Uses

Appropriate land uses in each area are outlined in the following table. This is only a general listing that should be further articulated through subsequent review of zoning standards for each area.

Table 2.6.2.A: Appropriate Land Uses in the Whalebone Junction Character Area

Whalebone Core [1]	Soundside [1]
- Single-Family Residential (5,000 sq. ft. or less) - Hotel/Boutique Hotel - Mixed Use - Accessory residential to residential - Commercial (10,000 sq. ft. or less) - Accessory residential to commercial - Office as an accessory use - Retail - Equipment rentals - Restaurant (Walk-up, sit down, no drive-thrus) - Gallery/Museum - Institutional (Parks, School, Non-Profit) - Personal Service Establishment - Cottage Court	- Multi-Family - Hotel/Boutique Hotel - Accessory residential to commercial - Mixed Use - Commercial - Office as an accessory use - Retail - Restaurant (Walk-up, sit down, no drive-thrus) - Personal Service Establishment - Indoor entertainment - Indoor/Outdoor Recreation - Water Dependent Uses (i.e. pier/boardwalk) - Accessory water dependent use to commercial use, mixed use, or hotel (i.e. pier/boardwalk) - Outdoor Events, Festivals, and Amusements

Table 2.6.2.A: Appropriate Land Uses in the Whalebone Junction Character Area

Whalebone Core [1]	Soundside [1]
	- Gallery/Museum - Institutional (Parks, School, Non-Profit) - Gymnasium/Fitness Studio

NOTES:
[1] Uses are listed in no particular order and do not reflect a priority or any other ranking.

Yellow highlighted uses below have a recommended change to be permitted as accessory to an outdoor recreation use.

Green highlighted uses below have a recommended change to be permitted as allowed with an outdoor recreation use.

Use Category	Use Type	Use	Supplemental Regulations	Notes
Residential	Cottage Court	SR	Section 7.2	Multi-Family is listed as appropriate use per Comp Plan
Residential	Dwelling, Multi-Family (Small)	PR		Multi-Family is listed as appropriate use per Comp Plan
Residential	Dwelling, Two-Family	SR	Section 7.60	Accessory residential to commercial is appropriate use per Comp Plan
Residential-Group	Bed and Breakfast	S		Boutique Hotel uses are strongly supported per Comp Plan

Retail	Beach Recreation Equipment Rental/Sales			Appropriate Use in Character Area
Service	Group Fitness-Aerobics/Dance/Karate/Yoga	P		Appropriate Use in Character Area
Food Service	Coffee Shop/Juice Bar	PR	Section 7.25	Mixed Uses and restaurants are appropriate uses per Comp Plan
Food Service	Ice Cream Shop	P		Mixed Use and restaurants are appropriate per Comp Plan
Commercial Mixed Uses	Group Development	S	Section 7.32	Mixed Uses are appropriate use
Commercial Mixed Uses	Multiple Principal Uses	SR	Section 7.32, 7.36	Comp Plan supports use in area
Accessory Uses	Outdoor Stands, Accessory to Shopping Centers and Group Developments	PR	Section 7.76	Comp Plan supports use in area

Definitions for reference:

Group Development- Means a group of buildings on a single site which are occupied and used for professional offices, retail, personal services, indoor recreation facilities, and or restaurant uses.

Multiple Principal Uses- means multiple, unrelated, primary or predominate uses located within one building.

3. Work with the property owners to include a greater mix of uses and increased connections with the sound.

August Update
During the August Planning Board Meeting staff presented an animation highlighting a portion of the CORD. The animation illustrated key aspects of what our Commercial Outdoor Recreation District Report highlights as opportunities to improve, including:

- A boardwalk that extends from the Soundside Event Site to the Outlets.
- Public art
- A focus on access and connection to the sound
- Shade trees to provide shade relief along the multi-use path corridor
- A blend of outdoor recreation, retail and other commercial and mixed uses

- Zoning and architectural guidelines were not being considered in the preliminary vision concept.

September 2025 Update
Staff invited property owners within the CORD to the September Planning Board meeting to hear directly what they like and don't like about the area. Tourism Board's representatives Lee Nettles and Diane Bognich gave an update on the construction of the boardwalk at the Soundside Event Center. The property manager for the Outlets Nags Head, Johanna Tucker, and owner of Miller's Restaurant and Outer Banks Adventures and Watersports, Brian Wilson, both attended the meeting and both spoke in favor of the Boardwalk extension concept. Since that meeting, staff spoke with Mr. Collector, who is family of Evelyn Mundon and who manages the Jurassic Putt along the corridor. Mr. Collector spoke in favor of a boardwalk extension to the outlets as well over the phone.

February 2026 Update
Staff provided an overview presentation about the CORD Report and animation for the benefit of new members. Staff plans to discuss the CORD Report and Boardwalk extension at the BOC retreat at the end of February with potential to pursue capital improvements, relevant text amendments and beautification elements pursuant to guidance from the BOC.

Attachments

1. CORD







COMMERCIAL OUTDOOR RECREATION OVERLAY DISTRICT REPORT

March, 2025

Town of Nags Head Planning & Development Department

Contents

Background 3

Location 3

Purpose 4

Comprehensive Plan 4

Whalebone Character Area 5

Soundside Activity Node Development 7

Essential Policies and Considerations 7

The Beach Road Design Plan 8

2023 Pedestrian Plan 9

US 158 Access Management Plan 10

Key UDO Sections 10

Map of Key Locations within The CORD 11

Northern CORD 12

Central CORD 13

Causeway CORD 14

Map of Vacant Private Property in CORD 15

Structures Square Footage in CORD 15

Soundside Boardwalk Concepts 16

Analysis 17

Recommendations - Zoning 18

Recommendations - Walkability 23

Existing, Planned and Proposed Pedestrian Connections in CORD 25

Public Art Examples 26

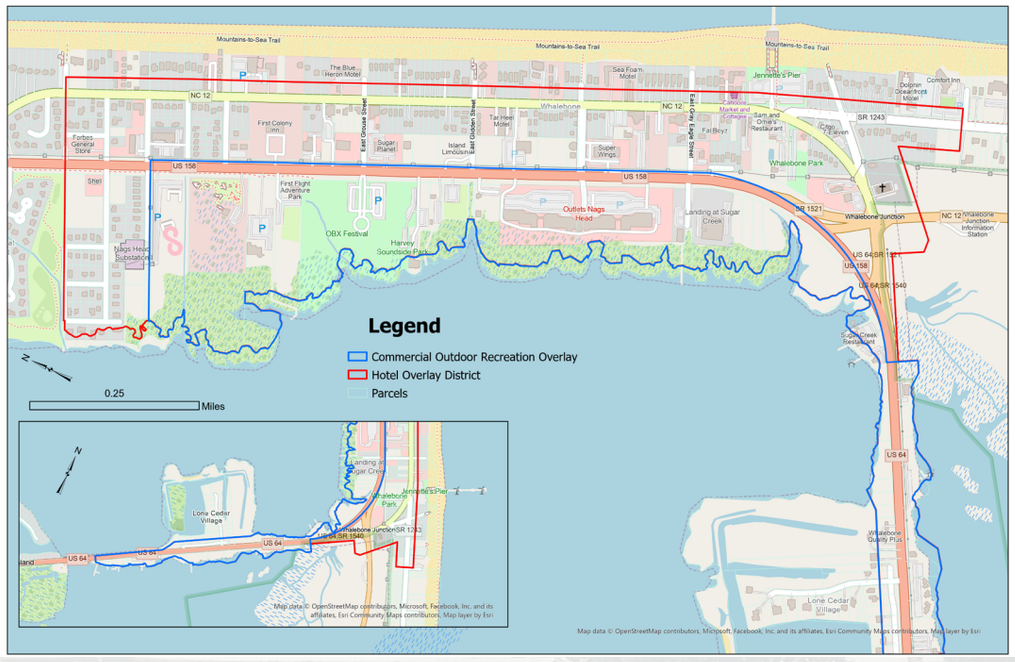
Background

The Commercial Outdoor Recreation District (CORD) was established in 1995. The district was created to address recreational uses located throughout the C2, General Commercial District as they were creating land use incompatibility issues. As an example, a go-cart track next to residential development was considered problamatic due to noise. In reviewing minutes from the March 1, 1995 Board of Commissioners Meeting, Planner Bruce Bortz pointed out regulations regarding noise, hours of operation etc. were moved to Chapter 3 Amusements, Entertainment and Crowd Gathering in the Town Code.

The 2000 and 2010 Land Use Plan both state that The Commercial Outdoor Recreational Use Overlay Zoning District was established to accommodate the ever-growing commercial recreational development requests made to the Town. It shall be a policy of the Town to periodically review the adequacy of these regulations and make the necessary modifications when public health, safety and welfare issues arise. The Town shall not enlarge the overlay district and shall consider reducing the district in size or amending the uses when conflicts develop

Location

The Commercial Outdoor Recreation District (in blue) runs from Forbes St (N) to the south side of Whalebone Junction. The Hotel District (in red) runs from Forrest St (N) to Governor St. (S) The Outdoor Recreation District overlaps and is within Hotel District. Both extend down the Causeway. The underlying zoning for the Commercial Outdoor Recreation Overlay District is C2, General Commercial for all properties.



Purpose

The Town is examining the regulations of the CORD and the underlying C-2 District to ensure they align with Soundside Character Area goals in the Comprehensive Land Use Plan.

The Town's strategic plan stipulates goals, objectives and action items to be carried out over the year. Action items must be accomplished to achieve stated objectives and goals. The development goal within the strategic plan states: To achieve responsible, adaptive development that aligns with our community vision. Action 2.2 states: Identify and correct areas of land use incompatibility within the town; correct inconsistencies between the Comprehensive Plan and the UDO. Item D. mentions specifically examining allowable uses within the Commercial Outdoor Recreation Overlay District (CORD).

This report consolidates key planning documents related to planning and development of the CORD zoning overlay district. The zoning district largely overlaps with the Soundside Activity Node in the Whalebone character area as described in the Town's Comprehensive Plan. Documents reviewed include the comprehensive plan, the Beach Road Plan and the 2023 Pedestrian Plan, past staff reports, presentations and text amendments related to the area. This report documents existing conditions and provides analysis and recommendations to support the implementation of the Soundside Activity Node's development goals. Recommendations include revising allowable uses in the CORD and enhancing pedestrian safety to create a cohesive and accessible environment.

Comprehensive Plan

The Town of Nags Head is comprised of several distinct areas and each have their own unique characteristics. The Comprehensive Plan recognizes these areas as Character Areas. Character Areas denote specific geographic areas of the town that:

- Have unique or special characteristics to be preserved or enhanced;
- Have the potential to evolve into unique areas with more intentional guidance of future development through planning and implementation; or
- Require special attention due to unique development issues.

These Character Areas represent areas where more detailed, planning and implementation of certain policies, investment, incentives, or regulations may be applied in order to preserve, improve, or influence their future development patterns that are consistent with the town's vision.

Character areas provide both the vision and policy direction for the desired use, design,infrastructure, and other elements that new development must consider. Character area planning provides the policy direction that regulations must work to achieve. This means that the town's ordinances, development standards, design standards, and other programs should work together to allow achievement of character area goals.

Comprehensive Plan

Each Character Area in the Comprehensive Plan outlines key elements that define the areas identity and future development:

Area Description: Highlights significant features, attributes, infrastructure, land uses, and overall sense of place.

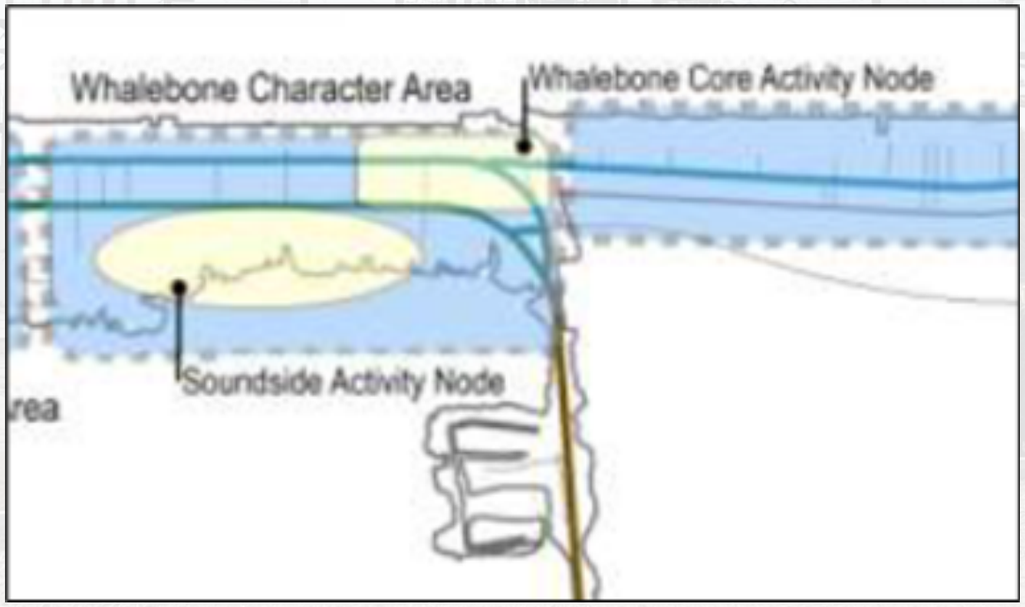
Development Plan: describes the hopes and concerns for each character area and further outlines the future desires for land use types, form, height, density, architectural characteristics, important infrastructure and desired bicycle and pedestrian connections. It also considers regulatory constraints and land use compatibility.

Activity Nodes: are areas that are anticipated for future concentration of uses that serve as destinations or hubs of activity for the surrounding area. These are characterized by higher intensity uses, compact development patterns, walkability, and a higher standard of architectural and site design. Activity centers include a mix of residential and commercial uses including retail, dining, and office. Areas designated as activity centers should be planned in a way to encourage pedestrian activity.

Legacy Establishments, Structures, or Locations contribute to the overall sense of place or tell the story of Nags Head's past. These establishments, structures, or locations often remind you of the past and are nostalgic

Whalebone Character Area

Whalebone Junction is the southern gateway to the Town and Cape Hatteras National Seashore. All traffic coming to the Outer Banks via Hwy 64, regardless of the destination, must pass through this juncture to travel north or south to other Outer Banks destinations. This area encompasses the area between Whalebone Junction and Forrest Street and contains many institutional, cultural, and recreational attractions including Jennette's Pier, the Soundside Event Site, Whalebone Park, and the Harvey Soundside Park. The Whalebone Junction Character Area represents the southernmost node of commercial activity in the town and contains many examples of legacy type establishments that embody the heritage of the town. This area is also known for its expansive, scenic views of the Roanoke Sound and marshes that are often visible from US 158 Corridor and at Whalebone Junction.



Whalebone Character Area

The Whalebone Junction Character Area accommodates uses such as restaurants, convenience/grocery stores, outdoor recreational opportunities, small scale shopping, and the only retail outlet center in the Outer Banks and northeastern North Carolina. These commercial uses are located within walking distance of surrounding residential accommodations.

The Whalebone core is outside of the CORD and will not be included in this report.

The Soundside Activity Node is described as follows in the Comprehensive Plan:

The Soundside Activity Node is located on the west side of US 158 between West Forbes and West Grey Eagle in the general vicinity of the new Soundside Event Site and the Town's Harvey Soundside Park. The core of the Soundside Character Area is the Soundside Event Site, previously the location of Windmill Point Restaurant. The Soundside Event Site was purchased in 2008 and is a 10 acre area adjacent to the Roanoke Sound. The property is owned by the town and Dare County Tourism Board.

The Soundside Activity Node is known for its scenic viewsheds of the Roanoke Sound and marshes that are visible from the US 158 corridor. This area is an asset to the town because of the large expanses of marshes and the presence of estuarine shoreline. The estuarine shoreline not only adds to the sense of place and quality of life but provides important nursery habitat for seafood and birds. This area is relatively low density and comprised of outdoor entertainment, water-based recreation, and commercial uses such as dining and shopping. This area is viewed as a community gathering location due the many programmed events and festivals held at the Soundside Event Site.

Whalebone Character Area Development Plan

A. Appropriate Land Uses

Appropriate land uses in each area are outlined in the following table. This is only a general listing that should be further articulated through subsequent review of zoning standards for each area.

Table 2.6.2.A: Appropriate Land Uses in the Whalebone Junction Character Area

Whalebone Core [1]	Soundside [1]
- Single-Family Residential (5,000 sq. ft. or less) - Hotel/Boutique Hotel - Mixed Use - Accessory residential to residential - Commercial (10,000 sq. ft. or less) - Accessory residential to commercial - Office as an accessory use - Retail - Equipment rentals - Restaurant (Walk-up, sit down, no drive-thrus) - Gallery/Museum - Institutional (Parks, School, Non-Profit) - Personal Service Establishment - Cottage Court	- Multi-Family - Hotel/Boutique Hotel - Accessory residential to commercial - Mixed Use - Commercial - Office as an accessory use - Retail - Restaurant (Walk-up, sit down, no drive-thrus) - Personal Service Establishment - Indoor entertainment - Indoor/Outdoor Recreation - Water Dependent Uses (i.e. pier/boardwalk) - Accessory water dependent use to commercial use, mixed use, or hotel (i.e. pier/boardwalk) - Outdoor Events, Festivals, and Amusements

Table 2.6.2.A: Appropriate Land Uses in the Whalebone Junction Character Area

Whalebone Core [1]	Soundside [1]
	- Gallery/Museum - Institutional (Parks, School, Non-Profit) - Gymnasium/Fitness Studio

NOTES:
[1] Uses are listed in no particular order and do not reflect a priority or any other ranking.

This area is envisioned to be a destination where people can park their car and enjoy exploring the surrounding area by foot or bike. This area is imagined as primarily commercial with a mix of retail and restaurant and a high degree of walkability. The Advisory Committee identified this character area as the model of future beach road development.

Soundside Activity Node Development

In both the Whalebone Core Activity Node and the Soundside Activity Node, the town may consider unique zoning techniques at the center of these activity nodes to facilitate the desired arrangement of land uses and encourage neighborhood commercial development.

The Soundside Activity Node is envisioned to develop as a high quality, mixed use area and prime location for recreational uses and hotel development. Further, the area is highly desirable for additional dining opportunities and local, boutique style shopping that is designed as a planned, highly walkable, destination type development. Mixed use development should utilize vertical and horizontal development with groupings of commercial, dining, office, and accommodations. This area was identified as appropriate for hotel development with a desire for a more specialty, boutique type hotel. Additionally, there is a preference for groupings of smaller scale buildings over a single, massive structure.

Pedestrian connections between uses are strongly encouraged. In addition, all future development should work to protect the viewsheds of the sound from the US 158 corridor and avoid "walling off" the sound. Building sizes in this area should be evaluated and additional study conducted to determine appropriate building sizing for the character area.

Future development should work to increase bike and pedestrian connections from the Soundside to the Whalebone Junction Core and other residential areas to the north and south. Traffic calming and pedestrian safety measures, such as improved cross walks, should be implemented in order to safely move pedestrians and cyclists across US 158.

Essential Policies and Considerations

▪ Develop standards through future ordinance revisions to implement the development plan as described herein.
(LU-1, LU-4, LU-11, LU-14, LU-15, LU-16, LU-24, LU-25)

▪ Develop pedestrian infrastructure for this character area as described in this section and as listed in the Transportation Element in Chapter 3. This includes but is not limited to a multi-use path on US 158 between Gull Street and the Event
Site and between Jennette's Pier and Gull Street on NC 12.
(TP-1, TP-3, PR-4, PR-8)

▪ Recognize legacy businesses and encourage their preservation. (EC-6, EC-7)

▪ Promote and expand a diverse range of housing accommodations through incentives and removal of regulatory barriers. (LU-27)

▪ Protect viewsheds from US 158 of the Roanoke Sound and marshes. (NR-1, NR-4)

Corridors Character Area

US 158

- More walkable and safe

- Lower speed limit

The Beach Road Design Plan

In January 2006, the Town of Nags Head invited the NC State University College of Design to conduct a study on determining future development trends and character on NC 12, which stretches roughly 6.5 miles along the area north of Whalebone Junction. The study proposes a vision plan with development strategies and design recommendations which resulted from the analysis of existing conditions, as well as the assessment of community perceptions and expectations.

The plan analyzes the Whalebone Junction corridor as a gateway to the Beach Road, to the Town of Nags Head and to the Outer Banks. During public input sessions, it was noted that the district currently provides a minimum of opportunities for a walkable environment due to:

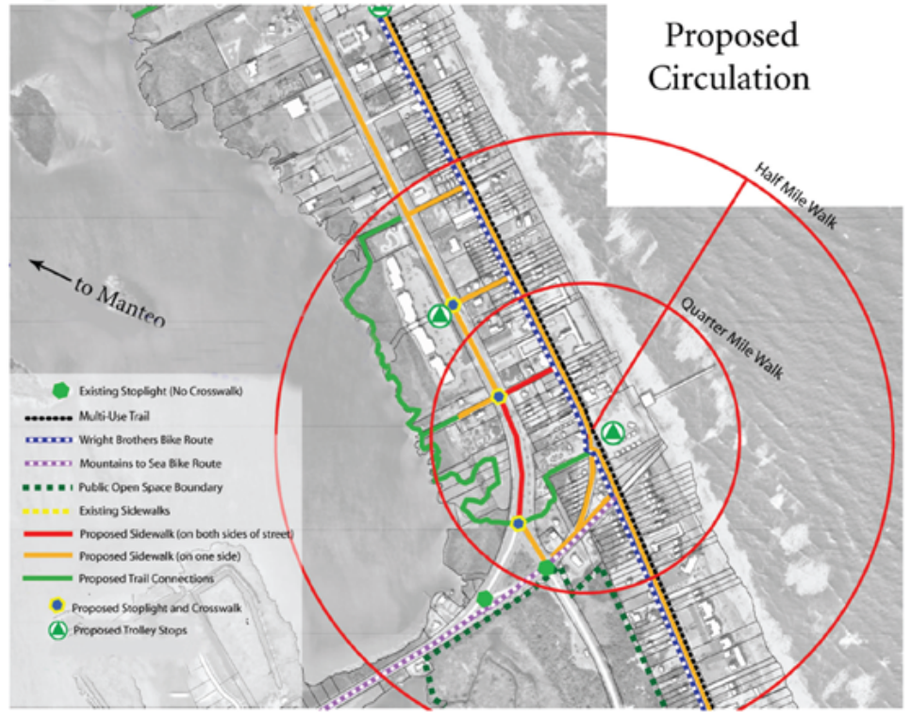
• fast automobile traffic, a lack of warnings, and insufficient directional signage at the entrance to the Beach Road and at speed limit changes;

• a lack of entry signs (such as "history" and "welcome" types);

• a lack of traffic calming features; and parked cars in front of buildings, or along the road, generating safety concerns for pedestrians and blocking the flow of traffic.

The Beach Road Design Plan

The plan goes on to make numerous recommendations around appropriate land uses, parking, building design, scale, streetscape, signage, lighting and pedestrian access. The plan conceptually recommends updating the circulation of the district as shown below.



Proposed circulation pattern, including sidewalk and trail connections for the Whalebone Junction District.

2023 Pedestrian Plan

In 2023, the Town of Nags Head updated its Pedestrian Plan, prioritizing key projects to improve connectivity, safety, and accessibility. The update ranked projects based on priority, cost, and impact, with several directly enhancing pedestrian access to the Commercial Outdoor Recreation District (CORD) and surrounding areas.

Key priority projects include:

• Project 5: A multi-use trail between S. Seachase Drive and W. Baymeadow Drive, filling a critical gap in the pedestrian network and improving access from the north to the CORD.

• Project 6: A sidewalk extension in front of the outlet mall, enhancing pedestrian movement in a high-traffic area.

• Project 13: A sidewalk along Grouse Street, providing a direct link between Beach Road and the Soundside Event Site.

• Project 15: Further extending the multi-use path, ensuring stronger connections within the CORD.

• Project 19: Though just outside the CORD, this project enhances pedestrian access between nearby residential areas and the new Inn at Whalebone Hotel.

Together, these projects will significantly improve walkability in the area, with an estimated total cost of approximately $2.5 million.

2023 Pedestrian Plan

Rank	Project Description	Cost	Length
1	W. Side Multi-Use Path (Carolista to Soundside Road)	$1,298,548	6,645
2	E. Epstein St.	$57,750	420
3	Wrightsville Ave - E Bonnett St to S. VA Dare Trail	$479,935	1,910
4	S. Seachase Dr. (Epstein)	$45,150	420
5	W. Side Multi Use Path (S. Seachase-W. Baymeadow Dr.	$1,500,750	4,350
6	W. Side Multi-Use Path (Gull St. to Gray Eagle St.)	$289,800	720
7	E. Barnes St.	$21,120	110
8	E. Admiral St.	$51,975	550
9	W. Soundside Rd.	$330,000	2,400
10	W. Blue Jay St.	$44,550	360
11	W. Baymeadow Dr.	$70,840	560
12	Instersection Saterfield Landing to Driftwood	$52,200	290
13	E. Grouse St.	$65,588	450
14	W. Windjammer Dr.	$101,832	805
15	W. Side Multi-Use Path (W. Gary Eagle St. to Sugar Creek Restaurant)	$668,800	1,900
16	W. Woodhill Dr.	$103,125	750
17	W. Saterfiled Lnading Rd.	$115,115	800
18	W. Villa Dunes Dr.	$151,250	1,10
19	W. Lakeside St.	$73,645	515
20	W. Oak Knoll Dr.	$99,000	600

US 158 Access Management Plan

The US 158 Access Management Plan is currently in the State Transportation Improvement Program (STIP). The STIP is NCDOT's long-range transportation plan. It identifies the construction funding and schedule for state transportation projectes over a 10-year period. NCDOT updates the STIP approximately every two years. The project is currently on the 'back end' and has not received funding to fully design or construct. It is at least 5 years away from being funded and many years further from being constructed. Below is the concept redesign for the area of US 158 adjacent to the CORD.



Key Sections of the Unified Development Ordinance

6.3.1. CO Commercial-Outdoor Recreational Uses Overlay District. The Commercial-Outdoor Recreational Uses Overlay District is established to provide a set of comprehensive land use regulations for the operation of commercial-outdoor recreational uses while protecting the residentially zoned areas of the Town. This shall be the only area within the Town where these uses are allowed.

8.5.2.4. Uses Allowed. The underlying zoning district to the Commercial-Outdoor Recreational Uses Overlay District is the C-2 General Commercial Zoning District. The outdoor recreational uses allowed in this district may be allowed as stand-alone uses or in combination with other outdoor recreational uses. Outdoor recreational uses may also be combined with certain uses allowed in the underlying C-2 zoning district. However, when any non-recreation related use is combined with a recreation use, the non-recreation use must be accessory and subordinate to an outdoor recreation use. In this instance, only the following uses shall be allowed as accessory to an outdoor recreation use and shall be contained within the principal building:

8.5.2.4.1. Concession.
8.5.2.4.2. Amusement arcade.
8.5.2.4.3. Restaurant.
8.5.2.4.4. Retail.
8.5.2.4.5. Single-family dwelling.

Lots may also be developed with any of the principal uses allowed in the C-2 zoning district. When this occurs, these lots shall not be utilized in combination with any of the recreation uses allowed within this overlay district.

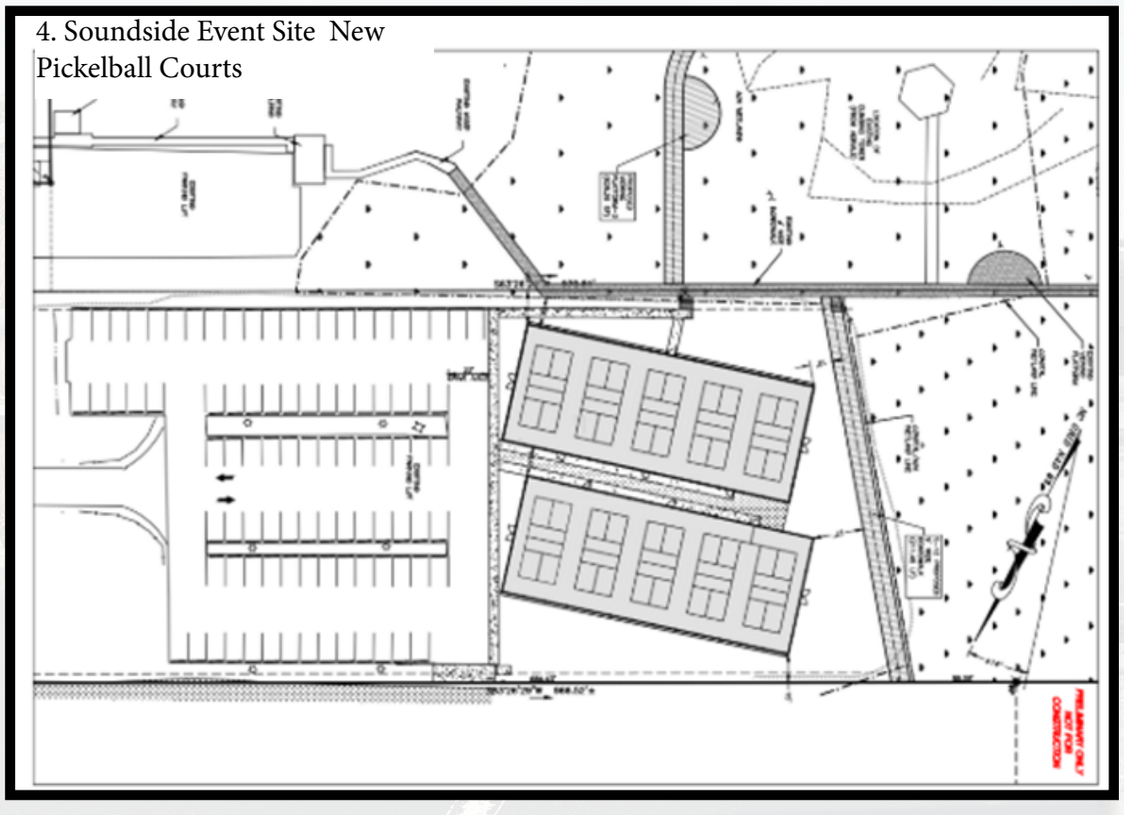
Reference Map of Key CORD Locations



Northern CORD

The Northern Portion of the CORD is located south of the Lakeside residential neighborhood and west of US 158. The western portion of the CORD fronts the Roanoke Sound. The area is characterized by classic outdoor recreation uses including mini golf, go karts and concessions. The northern CORD also contains the Sounside Event Site which has grown to include the First Flight Adventure Park. The Soundside Event Site is a major gathering site for the Outer Banks community. The site hosts numerous popular events including the Seafood Festival and the OBX Rod and Custom Festival among others. The site has recently received site plan approval to construct pickleball courts and a new boardwalk. The Town has also received grant funding to construct a living shoreline to protect the land from erosion while encouraging the marsh and sound interface to remain which is crucial for natural habitat. The area has good pedestrian infrastructure highlighted by the 10' wide, concrete, multi-use trail connecting the Village at Nags Head neighborhood from Baymeadow Drive to the Outlet Mall in the Central CORD. With the construction of the new boardwalk at the Soundside Event Site, there is an opportunity to expand the boardwalk to the Central CORD area. The existing multi-use path runs adjacent to US 158 but lacks shade, seating and visual interest. Adding vegetation, benches and public art could enhance the pedestrian experience, creating a more comfortable and inviting corridor.

4. Soundside Event Site New Pickelball Courts



1. Full Throttle Speedway



3. First Flight Adventure Park



2. Mutiny Bay Adventure Golf



5. Soundside Event Site



Central CORD

The Central Portion of the CORD is located south of the Soundside Event Site and west of US 158. The western portion of the CORD fronts the Roanoke Sound. The area is characterized by the Outlets, and high density residential at the Landings at Sugar Creek. Common land uses include retail, residential, outdoor recreation including put-put golf and go kart racing. The central CORD contains the open parcels at the bend in US 158 known as "Catfish Farm" parcels. This catfish farm parcels being preserved open-space will help maintain the visual connection with the Sound from the street. The area contains a six-foot multi-use path up to Gull Street. At Gull Street, the sidewalk ends with no connection to the Landings at Sugar Creek to the south. This sidewalk connection is planned and listed in the 2023 Pedestrian Plan. There is an opportunity to expand the boardwalk connection from the Soundside Event Site to the central CORD in the future. The only crosswalk and traffic light across US 158 in this area is located at Gull Street. There is an opportunity to improve connections to the destinations across US 158 located within the Whalebone Activity node. There is also an opportunity to allow for small multi-family housing or single or two family housing as an accessory use in this area. There may also be an opportunity to allow outdoor stands to engage pedestrians and activate the corridor.

9. Outlets Nags Head



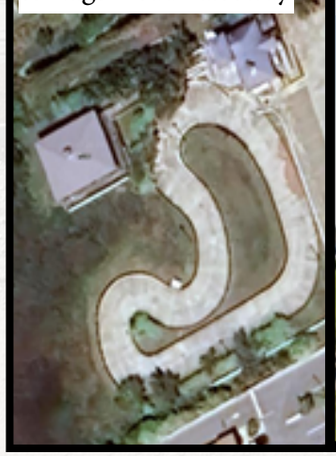
6. Harvey Soundside Public Access



7. Jurassic Putt



8. Nags Head Raceway



10. The Landings at Sugar Creek

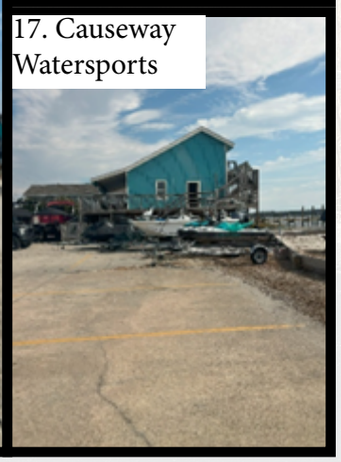


Causeway CORD

The Causeway Portion of the CORD is located along the US 64 bridge bounded by the Roanoke Sound to the north and the south. The area is characterized by a blend of land uses including retail stores, restaurants, watersports rentals, gas stations, a public pier and kayak launch and single family residential homes. The Causeway CORD area contains small open space parcels that are not suitable for commercial construction, providing excellent views of the Sound and undeveloped marshlands to the south. The Causeway CORD area serves as a gateway to the southern Outer Banks as well as to Nags Head. It serves as the first impression for many visitors when arriving to the Outer Banks on vacation. This section of the CORD has poor pedestrian infrastructure and commercial businesses are only safely accessed by automobiles. At Gull Street, the sidewalk ends with no connection to the Landings at Sugar Creek to the south. There is limited return on investment for constructing a sidewalk or boardwalk to this area from the central CORD. Given the distance and isolation of the area, it is unlikely to be well used, although that could change in the future. Sidewalk connections to this area are currently limited to the planned sidewalk connection to the Sugar Creek Restaurant. There may be an opportunity in this area for more boutique hotels and accessory residential land uses.


13. Kitty Hawk Kites


16. Basnights Lone Cedar Care


17. Causeway Watersports


11.Sugar Creek Restaurant


12. Nags Head Public Pier


14. Nags Head Watersports


15. Nags Head Watersports

Vacant Private Property in CORD



There are currently 9 privately held parcels that are still vacant within the CORD with a total acreage of 3.463272 acres. There is a larger number of commercially zoned properties just outside the CORD on the eastside of US 158 that are currently vacant and have the potential to be developed commercially or residentially.

Structure Square Footage in CORD

Full Throttle Speedway – 400 sq. ft.
Blackbeards Mini Golf – 2,100 sq. ft.
Millers Restaurant – 6,510 sq. ft.
Kitty Hawk Water Sports – 1,040 sq. ft.
Jurassic Putt – 248 sq. ft.
Outlets Nags Head – four buildings of 19,000 to 22,000 sq. ft
Sugar Creek Restaurant – 7,331 sq. ft.
Whalebone Quality Plus Gas Station – 1,208 sq. ft.
Causeway Watersports – 896 sq. ft.
Fishing Unlimited Bait & Tackle – 1,182 sq. ft.
Basnights Lone Cedar Restaurant – 13,785 sq. ft.
Valero Gas Station – 4,292 sq. ft.
Tale of the Whale Restaurant – 6,332 sq. ft.
Kitty Hawk Kites– 840 sq. ft.
Oceans East Bait & Tackle – 3,200 sq. ft

Town Soundside Boardwalk Concepts

The idea of a soundside boardwalk was first identified in the Town's Parks and Recreation Plan, with planning funds allocated in the 2013/2014 budget to explore feasibility. The Town's goals included conducting property owner outreach, researching environmental permitting, and developing a viable boardwalk alignment.

To guide this effort, the Board of Commissioners appointed a stakeholder committee in February 2013. Shortly after, the Town engaged Environmental Professionals, Inc., which developed a preliminary alignment and conducted outreach to affected property owners.

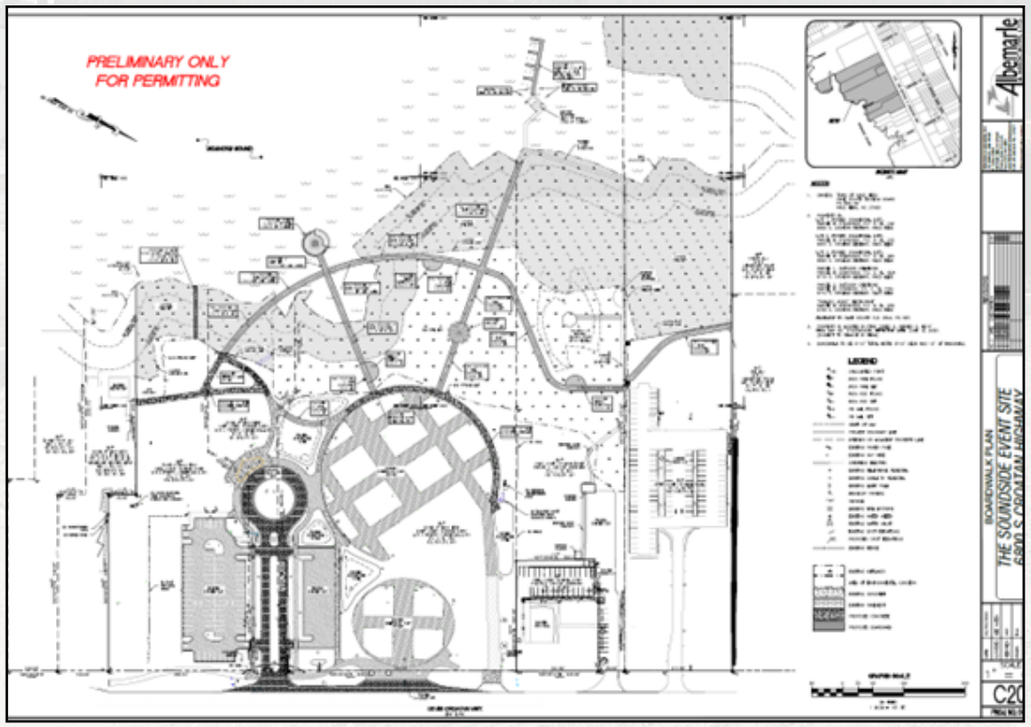
In 2016, the Board of Commissioners considered a text amendment to exempt private property owners from lot coverage and minimum yard requirements for boardwalk construction within designated easements. However, after review, the Board ultimately decided not to move forward with permitting and construction. The conceptual alignment developed during this planning process remains a foundation for future discussions, should interest in a soundside boardwalk be revisited. Below are preliminary drawings from the time:



Soundside Event Center Boardwalk



In late 2024, the Soundside Event Center received CAMA and Town approvals to construct a boardwalk, completing part of the concept.



Analysis

Strengths:

• Existing grouping/cluster of outdoor recreation businesses

• The Soundside Event Center serves as an anchor attraction, drawing visitors and activity

• Proximity of the CORD to hotels, cottage courts and large vacation rentals supporting visitor demand

• Town ownership of key local parks and properties in and near the CORD including, Whalebone Park, Nags Head Public Pier, Harvey Soundside Park and preserved 'Catfish Farm' Properties enhance the districts appeal

• Proximity to Jennette's Pier and Whalebone Activity Node, increasing visibility and accessibility

• Views of and proximity to the ocean and the sound adds to desirability

Weaknesses:

• Lack of zoning protetion in that the full range of C2, General Commercial Uses are allowed by right, meaning residential redevelopment or non-recreational commercial uses could disrupt the districts continuity and character

• Potential for development that reduces visibility of the sound

• Lack of pedestrian connectivity to and from the district from points east and north

Analysis

Weaknesses, Continued:

• Challenge and viability of new outdoor recreation related businesses due to cost of land, development and doing business

• Current zoning only allows non-recreational ues as accessory to recreation based business, limiting opportunity for diverse mixed use projects/multiple principle uses

Opportunities:

• Improve Pedestrian connectivity - expand walkways, crosswalks, bike paths to link district to surrounding areas

• Remove incompatible uses to preserve district continuity long term

• Allow small multifamily development as an accessory use

• Soundside Event Site expansion helps bring events and programming to the CORD, central destination that could be expanded on to help retain existing CORD businesses

• Increased connection to sound and natural landscape via boardwalk, boat parking, maintaining visual connection to the sound, public art and installing living shorelines in the area to reduce erosion and support natural habitat

• Allow multiple principal uses with CORD Use. Eg. allow multiple principal uses in the CORD such as restaurant and mini golf

Recommendations - Zoning

To align the Commercial Outdoor Recreation District (CORD) with the Comprehensive Plan and ensure consistency with the Unified Development Ordinance (UDO) the following zoning amendments are recommended:

Recommendation 1. Amend the UDO to reflect CORD goals

a. Remove noncompatible uses from the C2 district within the CORD to maintain recreational focus

b. Expand allowable accessory only uses within the CORD, offering flexibility while ensuring they compliment outdoor recreation

c. Consider allowing multiple principal uses within CORD proprerties, such as allowing a restaurant and outdoor recreation use on the same site.

P = Permitted by Right, Administrative
R = Supplemental Regulations
S = Special Use

Yellow Highlighted uses below have a recommended change to be permitted as accessory to an outdoor recreation use.

Red Highlighted uses are recommended to no longer be allowed within the CORD.

Blue highlighted is a housekeeping change.

Green highlighted is a mixed use option to consider allowing with Outdoor Recreation Use.

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Residential	Short Term Rental	PR		
Service	Massage and Bodywork Therapy	PR	Section 7.21	
Recreation-Land Dependent	Aerial Adventure Park	SR	Section 7.57	
Recreation-Land Dependent	Designated Public Events Site	SR	Section 7.58	
Recreation-Land Dependent	Go Kart Track	SR	Section 7.59	
Recreation-Land Dependent	Grass Surface Putting Course	SR	Section 7.60	
Recreation-Land Dependent	Mini-Golf	S		
Recreation-Land Dependent	Outdoor Amusement Rides/Games	SR	Section 7.61	
Recreation-Land Dependent	Outdoor Sport Climbing Wall	SR	Section 7.62	
Recreation-Water Dependent	Parasail Retal	C		Change to S
Recreation-Water Dependent	Tour Boat, (49 Passengers or less)	C		Change to S
Recreation-Water Dependent	Watercraft Rental, Non-Powered	SR	Section 7.63	
Recreation-Water Dependent	Watercraft Rental, Powered	SR	Section 7.63	
Recreation-Water Dependent	Watercraft, Personal (Jet-Ski)	SR		

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Residential	Cottage Court	SR	Section 7.2	Multi-Fam listed as appropriate use per Comp Plan
Residential	Dwelling, Large Residential	PR	Section 7.4	Counter to CORD development vision.
Residential	Dwelling, Multi-Family (small)	PR		Multi-Fam listed as appropriate use per Comp Plan
Residential	Dwelling, Multi-Family (large)	SR		
Residential	Dwelling, Single-Family (detached)	P		
Residential	Dwelling, Two-Family	SR	Section 7.60	Accessory residential to commercial appropriate per Comp Plan
Residential	Granny Pods/ Temporary Health Care Structures	PR	Section 7.6	
Residential	Home Occupation Class 1	PR	Section 7.7	
Residential	Home Occupation Class 2	PR	Section 7.7	
Residential	Home Occupation Class 3	PR	Section 7.7	Change to S

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Residential	Short-term Rental	P		
Residential-Group	Bed and Breakfast	SWW		Boutique Hotel type uses strongly supported per Comp Plan
Residential-Group	Boarding Houses	SR	Section 7.8	
Residential-Group	Dormitory	SR	Section 7.10	
Residential-Group	Family Care Homes/Halfway Homes	PR	Section 7.11	Counter to CORD
Residential-Group	Family Foster Homes	P		
Retail	Art Gallery	P		
Retail	Art Gallery – Owner Occupied	P		appropriate per Comp Plan
Retail	Artisan's Workshop < 3,000 sq. ft.	SR	Section 7.13	
Retail	Artisan's Workshop >3,000 sq. ft.	SR	Section 7.13	
Retail	Auction House	PR	Section 7.14	
Retail	Beach Recreation Equipment Rental/ Sales	P		
Retail	Bicycle shop (repair, retail, rental)	P		
Retail	Convenience Store	P		

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Retail	Friearms Sales and Service	P		
Retail	Food/Grocery Store	P		
Retail	Furniture Store	P		
Retail	General Retail	P		
Retail	Jewelry	PR		
Retail	Greenhouse/ Plant Nursery	P		
Retail	Hardware Store	P		
Retail	Pet Shop/Dog Grooming	PR		
Retail	Pharmacy	P		
Retail	Production/ Repair/Sales eyeglasses, Hearing Aids, Prosthetics	P		
Service	Automobile Repair	SR	Section 7.15	
Service	Bail Bonds	P		
Service	Banking Institution	P		
Service	Broadcasting Studios	P		
Service	Car Washes (automated and self service)	CS		
	Section 7.18		Section 7.73	
Service	Child Care Facility, Child Care Center	SR	Section 7.39	

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Service	Dry Cleaners and Laundromats (pickup only)	P		
Service	Food Bank	SR		
Service	Fueling Station	SR		
Service	Funeral Home	P		
Service	Group Fitness-Aerobics/ Dance/Karate/ Yoga	P		Appropriate use in character area
Service	Hair Salon	P		
Service	Indoor Fitness/Gymnasium	P		
Service	Indoor Public Assembly	P		
Service	Locksmiths	P		
Service	Massage and Bodywork Therapy	PR	Section 7.21	
Service	Metaphysical Wellness Services	SR	Section 7.22	
Service	Parking Lots	P		
Service	Shoe Repair	P		
Service	Spa	P		
Service	Tailor	P		
Service	Taxi/Limousine	S		
Service	Telecommunications Sales and Service	P		

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Service	Veterinary Clinic with Animal Boarding	SR	Section 7.21.1	
Service	Veterinary Clinic with no Animal Boarding	PR	Section 7.24.2	
Food Service	Coffee Shop/ Juice Bar	PR	Section 7.25	Mixed Use and restaurant appropriate per Comp Plan
Food Service	Ice Cream Shop	P		Mixed Use and restaurant appropriate per Comp Plan
Food Service	Food Truck	PR	Section 7.26	
Food Service	Microbreweries	SR	Section 7.27	
Food Service	Restaurant-Drive in	SR	Section 7.28	
Food Service	Restaurant-Neighborhood		Section 7.30	
Food Service	Restaurant- Sit Down		Section 7.31	
Food Service	Restaurant-Take Out			
Office	Building Contractor's Office	P		
Office	Professional Office,	P		
Commercial Mixed	Commercial with accessory residential	PR	Section 7.32, 7.33	

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Commercial Mixed Uses	Group Development	S	Section 7.32	Comp Plan Supports in CORD
Commercial Mixed Uses	Mixed Use Development	SR	Section 7.32, 7.34	Comp Plan Supports in CORD
Commercial Mixed Uses	Multiple Principal Uses	SR	Section 7.32, 7.35	Comp Plan Supports in CORD
Commercial Mixed Uses	Shopping Center	SR	Section 7.32	Counter to CORD
Institutional	Adult Day Service Center	SR	Section 7.36	
Institutional	Colleges, Universities, Community Colleges	S	Section 7.37	
Institutional	Education and Research Facilities	S		appropriate per Comp Plan
Institutional	School	SR	Section 7.38	
Institutional	Municipally Operated Farmer's Market	P		
Institutional	Libraries	S		
Institutional	Museum	P		
Institutional	Nonprofit/ Community Outreach Center	P		

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Institutional	Post Office	P		
Institutional	Private Club-house for 501©8 Frater-nal Beneficiary Societies as defined by the IRS	PR		
Institutional	Public Utility Facility	SR	Section 7.44	
Institutional	Religious Complex	SR	Section 7.45	
Institutional	Religious Complex w/ Accessory School/Day Care	SR	Section 7.45	
Medical	Alcohol & Drug Outpa-tient treatment	P		
Medical	Dialysis Cen-ter	P		
Medical	Medical Office	P		
Recreation	Bowling Alley	S		
Recreation	Community Garden	SR	Section 7.48	
Recreation	Fishing Pier	SR	Section 7.50	
Recreation	Indoor Enter-tainment	PR	Section 7.51	
Recreation	Public Beach/ Sound Access/ Bathhouse	P		
Recreation	Municipal Park	PR	Section 7.55	

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Recreation	Skate Park Facility	SR	Section 7.56	
Recreation	Theater	P		Boutique Hotel type uses strongly supported per Comp Plan
Telecommunica-tions	Concealed Building mounted An-tenna Installed Flush to Roof-line	PR	Section 7.65	
Telecommunica-tions	Concealed Building mounted Antenna Not Installed Flush to Roofline	S		
Telecommunica-tions	Small Wireless Facilities	PR		
Warehouse/Light Industrial	Commercial Crop Produc-tion, Indoor	P		Counter to CORD
Warehouse/Light Industrial	Fine Craft and Folk Art Production	P		
Accessory Uses	Bulkhead/Es-tuarine Bulk-head	P		appropriate per Comp Plan
Accessory Uses	Customary Accessory Church Facil-ities	S		
Accessory Uses	Docking Facil-ity, Accessory to Restaurant	P	Section 7.73	

Recommendations - Zoning

Use Category	Use Type	Use	Supplemental Regulation	Notes
Accessory Uses	Electric Vehicle Battery Exchange Station	P	Section 7.16	
Accessory Uses	Garage	P		
Accessory Uses	Greenhouses	P		
Accessory Uses	On-stie Rental of Beach Chairs & Umbrellas	PR	Section 7.75	
Accessory Uses				
Accessory Uses	Outdoor Stands- Accessory to Shopping Centers and Group Developments	PR	Section 7.76	Could add to more walkable/active street
Accessory Uses	Shed	P		
Accessory Uses	Solar Energy Facility, Accessory	P		
Accessory Uses	Swimming Pool	P		
Accessory Uses	Walls and Fences	PR	Section 7.78	
Accessory Uses	Wind Energy Facility, Rooftop	PR	Section 7.79.1	
Accessory Uses	Wind Energy Facility, Small	P		
Accessory Uses	Wind Energy Facility, Vertical Axis	P	Section 7.79.2	

Recommendations - Walkability

The Comprehensive Plan states at the beginning of the Whalebone Character Area Development Plan, "This area is envisioned to be a destination where people can park their car and enjoy exploring the surrounding area by foot or bike. This area is imagined as primarily commercial with a mix of retail and restaurant and a high degree of walkability." The plan then further elaborates in the Soundside Activity Node section of the Comprehensive Plan "Pedestrian connections between uses are strongly encouraged. And further, "Future development should work to increase bike and pedestrian connections from the Soundside to the Whalebone Junction Core and other residential areas to the north and south." Creating a pedestrian destination will help support outdoor recreation uses. Being able to park at Jennette's Pier or Whalebone Park in the south east or at the Soundside Event Site in the northwest and then seamlessly and safely allow people to walk from either activity node to the other would help support businesses and encourage more activity in the area. The linkage of activity nodes and improving the pedestrian experience are essential steps in accomplishing the development vision for the area as stated in the Comprehensive Plan.

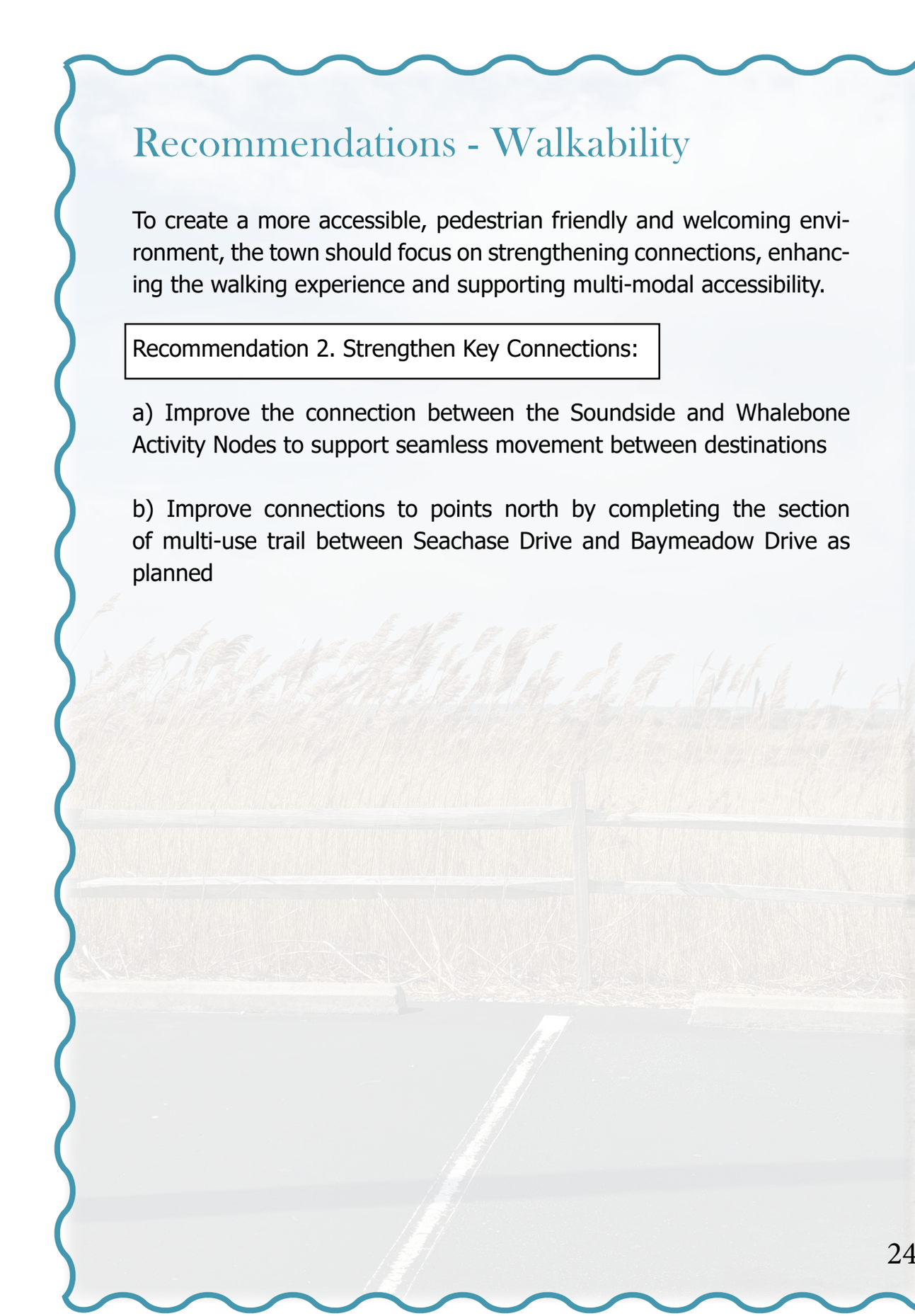
Recommendations - Walkability

To create a more accessible, pedestrian friendly and welcoming environment, the town should focus on strengthening connections, enhancing the walking experience and supporting multi-modal accessibility.

Recommendation 2. Strengthen Key Connections:

a) Improve the connection between the Soundside and Whalebone Activity Nodes to support seamless movement between destinations

b) Improve connections to points north by completing the section of multi-use trail between Seachase Drive and Baymeadow Drive as planned



Recommendations - Walkability

Recommendation 3. Enhance the Walking Experience:

a) Implement strategies from the Beach Road Plan to make walking the area more engaging and comfortable, including:

• Public art, murals, sculputures, creative installations to add character and interest

• Vegetation/shade trees - provide shade and enhance aesthetics

• Temporary commercial/vendor stands - can activate pedestrian spaces.

b) Continue to support NCDOT funding the proposed access management project for US 158, which remains in the State Transportation Improvement Plan but is currently unfunded.

c) Reconsider/explore construction of the Soundside Boardwalk from the Outlets to the Soundside Event Site recommended in the Town's Parks and Recreation Plan:

• Helps support CORD businesses as a destination to park, walk and shop/play

• Encourages visitors to patronize multiple businesses in the CORD instead of driving to individual business

Existing, Planned and Proposed Pedestrian Connections in CORD



Public Art Examples

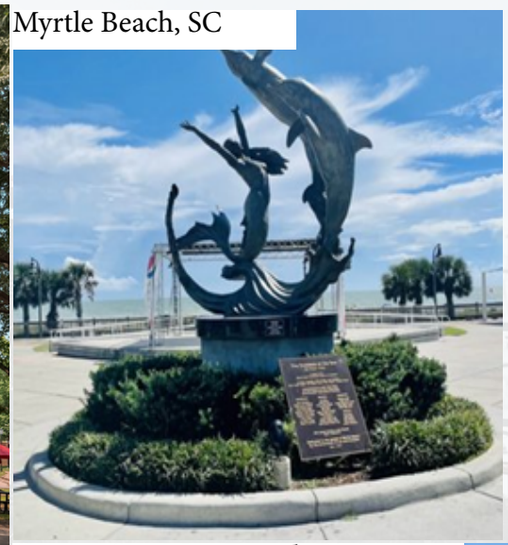
Public Art is a great way to engage the pedestrians and improve placemaking. Interactive art pieces are well liked and photographed. The Town could work with local artists through the Arts and Culture Committee to bring sculptures to the area as they have a history of doing in other areas of town. The Town has recently partnered Manteo High School's National Art Honor Society to paint an "Under the Sea" themed crosswalk on E. Bonnett Street near Dowdy Park and Nags Head Elementary School. This idea could be replicated somewhere within or near the CORD. The town has a variety of other successful examples of public art including:

- Dowdy Park Entrance Whale Ribs
- 8 art panels at beach accesses as part of art mast project
- One Love Mural at Dowdy Park
- Nature Loom at Town Park
- Painted Crosswalk at Bonnett and Memorial Avenue
- Chris Wheeler's murals at the Skatepark

Lake Norman, NC



Myrtle Beach, SC



Nags Head, NC



Wilmington, NC



Cagnes-Sur-Mer, French Riviera

