Town of Beaufort, NC
701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 15, 2021 - Held via Zoom due to the COVID-19 Pandemic
Monthly Meeting

Call to Order

Roll Call

1. 1. Roll Call
   2. Election of Officers

Agenda Approval

1. Agenda Approval for the March 15, 2021 Meeting

Minutes Approval

1. Minutes Approval from the February 15, 2021 Planning Board Meeting

New Business

1. Case No. 21-05. Text Amendment modifying language in the Land Development Ordinance Section 20: Special Use Permits

2. Modify/Revise the Existing Planned Unit Development (PUD) for Beau Coast Subdivision
3. Final Plat - Beau Coast Phase V
4. Preliminary Plat - Beau East Village Phase 1

Public Comment

Commission / Board Comments

Staff Comments

Adjourn

Town of Beaufort, NC

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Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, February 15, 2021 - Held via Zoom due to the COVID-19 Pandemic
Minutes

Call to Order

Chair Neve called the February 15, 2021 Planning Board Meeting to Order.

Roll Call

Present for the meeting were Ryan Neve, Paula Gillikin, Diane Meelheim, Jeff Vreugdenhill and Aaron Willis. Not present were Ralph Merrill and John LoPiccolo. Secretary Winn declared a quorum.

Also present for the meeting were Kyle Garner, Kate Allen, Denice Winn, Commissioner Ann Carter, Commissioner John Hagle and Commissioner Marianna Hollinshed.

Agenda Approval

Chair Neve asked if anyone needed to make changes to the Agenda or for a motion to approve the agenda as it was presented. Board Member Meelheim made the motion to approve the agenda as it was presented. Board Member Gillikin made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to approve the Agenda as it was presented.

Minutes Approval

1. Approval of Minutes from the January 19, 2021 Meeting

   Board Member Meelheim made a motion to approve the January 19, 2021 minutes as they were presented. Board Member Gillikin made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to approve the January 19, 2021 minutes as they were presented.

New Business

1. Case No. 21-02. Request to Rezone 1001 Cedar Street from R-8 Residential to CS-MU Cedar Street Mixed Use District

   Chair Neve opened case 21-02. Kate Allen presented on behalf of staff.

   Ms. Allen stated that this is a request to rezone 1001 Cedar Street from R-8 to CS-MU. She stated that in accordance with the General Statutes, legal ads were run the Carteret County News Times on February 3 and February 10, 2021. She stated that the notice letters were mailed on January 26, 2021 and that they sign was posted on January 27, 2021.

Ms. Allen provided the location of the property as well as the property information, including lot size and the current zoning. She stated that the existing dwelling is an existing non-conforming structure but if approved that would go away due to the front setbacks. She stated that the surrounding properties are a mixture of residential and commercial uses. Ms. Allen stated that the Future Land Use Map identifies the property as "Mixed Use" and if approved the rezoning would not require an amendment to the CAMA Core Land Use Plan Future Land Use Map.

Ms. Allen asked that the Board conduct a Public Hearing and provide a recommendation to the Board of Commissioners, as well as provide a Consistency Statement to the Board of Commissioners.

Ms. Allen stated that the applicant was present, Bradley Cummins, and Chair Neve asked if Mr. Cummins would like to add anything. Mr. Cummins stated that Ms. Allen summarized everything really well and they felt the property itself would be allowed for its intended purpose if this is passed. He stated that they want to make it more congruent and to blend in with the other properties.

Chair Neve opened the Public Hearing portion. Hearing no comments he closed the Public Hearing.

Chair Neve opened Board comments and questions. Board Member Gillikin wanted to know what would make it more consistent with its intended purpose. Mr. Cummins stated that currently the lot is not large enough to house two residences. Board Member Vreugdenhill asked what the current use of the property is. Mr. Cummins stated that it is single family residential. Board Member Vreugdenhill asked that if it is changed it will no longer be non-confirming. Ms. Allen stated that was correct. Chair Neve wanted to clarify that if it was changed it would allow for multifamily dwelling and Ms. Allen stated that was correct.

Chair Neve asked if anyone had responded from the letters that were sent out and Ms. Allen stated no. Board Member Vreugdenhill had a final question concerning the lot and whether or not it would need a special use permit for parking and multifamily use. Ms. Allen stated it would be a permitted use by right and it could comply with existing regulations.

Board Member Vreugdenhill made the motion to approve the request as it was presented and it is in conjunction with the Land Use plan and requirements. Board Member Gillikin made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to approve the rezoning request as it was presented.

2. Rezoning from TR to CS-MU 502 Cedar Street

Case #21-03

Chair Neve opened Case 21-03. Kyle Garner presented on behalf of staff.

Mr. Garner stated that this is at the request of the Board from last month. He stated that this is a rezoning from Transitional to Cedar Street Mixed Use. Mr. Garner said that this is one lot that is 15,143 square feet. Mr. Garner stated that eight letters were mailed to property owners within a 100 feet and the legal advertisement ran on February 3 and February 10, 2021. Mr. Garner presented the project facts to the Board as follows; 1) the site was used as part of the Congregational Church property and was used as a school and seminary in the Mid 1800's. In recent years it was a Bar-B-Que restaurant, Habitat for Humanity Outlet and a Bail Bond office, 2) At the January 2021 meeting the Board asked staff to make this request, 3) the rezoning is consistent with the 2006 CAMA Land Use Plan which specifically addresses the redevelopment of Cedar Street to Mixed Uses and an amendment to the CAMA is not needed, and 4) the Town has been working with NCDOT to improve the infrastructure under Cedar Street to include elements of the Small Area Plan. Mr. Garner provided the consistency statement and stated that this request is consistent with the CAMA Land Use Plan. Mr. Garner stated that no one has contacted in opposition and have heard comments of support.

Chair Neve asked if staff had spoken with the owner. Mr. Garner stated that a letter was sent to the owner and by State Law the Town has the ability to do this.

Chair Neve opened the Public Hearing portion, hearing no comments he closed the Public Hearing.

Chair Neve opened Board Comments/Discussion. Hearing nothing from the Board Chair Neve thanked the staff for doing this and asked for a motion.

Board Member Meelheim made the motion that the property be rezoned to Cedar Street Mixed Use and that it is consistent with CAMA Land Use Plan. Board Member Vreugdenhill made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to approve the request for rezoning as it was presented.

3. Case No. 21-04. Request to Rezone 823 West Beaufort Road from R-8 Residential to B-1 General Business District

Chair Neve opened case 21-04. Kate Allen presented on behalf of staff.

Ms. Allen stated that this is a request to rezone 823 West Beaufort Road from R-8 to B-1. She stated that the legal advertisement was run on February 3 and February 10, 2021 and that the sign was posted on January 27, 2021. Ms. Allen gave an overview of the subject property stating it is 0.474 acres and is currently zoned Residential. It is under contract to purchase by Janine Facciolo and she is the applicant requesting the rezoning. It is a conforming use and lot. Properties to the North and West are zoned R-8 and to the South and East the properties are zoned B-1. The Future Land Use Map identifies the subject property as General Commercial which is consistent with the B-1 general zoning district. Ms. Allen provided the Requested Action and Consistency Statement for the Board.

Chair Neve asked if the applicant was present and Ms. Facciolo stated she was present. Ms. Facciolo stated that they are hopeful to build a business there that would be an improvement to the areal.

Chair Neve opened the meeting to the public and hearing none closed this portion.

Chair Neve opened discussion for the Board. Chair Neve had a question/observation for Ms. Allen. He stated that the adjacent property is zoned R-8 but that it is clear that is not the use and was wondering if that needed to be looked at in the future. Ms. Allen stated she was open for discussion but stated she was unsure if that was something that the Board would rather wait until they get to the CAMA Land Use Plan update and UDO and she would leave it to the Board's discretion. Mr. Garner stated that Chair Neve has history with this area.

Board Member Vreugdenhill stated that if there were no other comments he would like to make a motion that they approve the case as presented and that it is consistent with the CAMA Land Use Plan and the Beaufort Town Plans. Board Member Gillikin made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to approve the rezoning request as it was presented.

Public Comment

Chair Neve opened Public Comment, hearing none he closed the Public Comment portion.

Commission / Board Comments

Chair Neve opened Commission/Board comments. Board Member Gillikin stated that she was happy to see so many projects going on around town.

Staff Comments

Chair Neve opened staff comments. Kyle Garner stated that since they are updating the CAMA Land Use Plan there is survey that has been put out and that Ms. Allen had put the link in the chat box. Mr. Garner stated that there will definitely be another meeting next month there could be several other items for the Board. Mr. Garner thanked the Board members for the time that they put into this and staff appreciates it.

Adjourn

Board Member Vreugdenhill made a motion to adjourn the meeting. Board member Meelheim made the second. A roll call vote was conducted by Secretary Winn and it was a unanimous vote, by the members present, to adjourn the February 15, 2021 meeting.

_____

Ryan Neve, Chair

_____

Denice Winn, Board Secretary

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Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 15, 2021 – Virtual Meeting via Zoom

AGENDA CATEGORY: New Business

SUBJECT: Case No. 21-05. Text Amendment modifying language in the Land Development Ordinance Section 20: Special Use Permits

BRIEF SUMMARY:

Section 20: Special Use Permits, of the Land Development Ordinance, currently uses the language "public hearing." Staff is requesting the term "public hearing" be changed to "quasi-judicial proceeding" in order to eliminate confusion between the legislative and quasi-judicial process. Staff has consulted with the Town Attorney to ensure the request is consistent with the North Carolina General Statutes and is support of this request.

REQUESTED ACTION:

Conduct public hearing and provide recommendation to the Board of Commissioners

EXPECTED LENGTH OF PRESENTATION:

5 Minutes

SUBMITTED BY:

Kate Allen, Town Planner

BUDGET AMENDMENT REQUIRED:

N/A

Staff Report

To: Planning Board
From: Kate Allen

Date: 3/1/2021
Meeting Date: 3/15/2021

Case Number 21-05

Summary of Request: Text Amendment modifying language in the Land Development Ordinance Section 20: Special Use Permits

Background

Applicant Staff Initiated Request

Additional Information Section 20: Special Use Permits, of the Land Development Ordinance, currently uses the language "public hearing." Staff is requesting the term "public hearing" be changed to "quasi-judicial proceeding" in order to eliminate confusion between the legislative and quasi-judicial process. Staff has consulted with the Town Attorney to ensure the request is consistent with the North Carolina General Statutes and is support of this request.

Requested Action Conduct public hearing and provide recommendation to Board of Commissioners

Attachments LDO Section 20: Special Use Permits with proposed changes; text to be removed is shown with strikethrough text and additions are noted in blue text

SECTION 20 Special Use Permits

A) General.

Special uses are practices which are not permitted by right in any zoning district in the Town of Beaufort, but may only be granted after due consideration by the Board of Commissioners (BOC). The consideration of a special use application is a quasi-judicial function requiring evidentiary hearings and specific findings of fact. Special use permits may only be granted by the BOC following a recommendation by the planning board and the quasi-judicial review process as stipulated in this section.

B) Special Use Permit Application Procedures.

1) A written application for a special use permit in all zones shall be submitted to the Town's Planning and Inspections Department in accordance with the requirements of section 1-M of this Ordinance and all applicable administrative regulations. The application shall include:
   a) A proposed use site plan which contains information documented in section 18-C of this Ordinance and the specific information features below:
      i) A vicinity map and survey of the parcel which shall include the zoning and use of all adjacent properties;
      ii) A legend identifying all symbols on the map;
      iii) A North arrow and a scale;
      iv) A preliminary design of the proposed use which shows all existing and proposed structures, parking layouts, driveways, buffering, landscaping, points of ingress and egress, easements, minimum building lines, and street rights-of-way;
      v) A site data block of features which includes the proposed use(s), square footage of the proposed and existing structure(s), site zoning, total acreage, number of lots, minimum lot size, and average lot size;
      vi) The map book, page number, and deed book information;
      vii) A note stating whether any portion of the property is included in any adopted Town plan; and,
      viii) Any other related information requested by Town staff, the planning board, or the BOC.
      ix) All required environmental permit improvements needed for the property.
   b) The special use permit sought; and,
   c) Information supporting the existence of the required findings, and providing such plans or other relevant data as may be required by the Town.

2) Whenever an application is submitted for a special use permit in a residential zone, the applicant shall also include:
   a) A narrative which illustrates the appropriateness of the proposed use in a residential zone. This narrative shall also describe all the architectural design features which make the proposed use and associated building compatible with the urban character of the residential neighborhood;
   b) The submitted site plan shall also include all street front architectural elevation drawings to insure the building(s) compatibility with the surrounding residential structures; and,

c) Additionally, the BOC and town staff may require a professional rendering or any other graphic illustration of the proposed structure.

3) The application shall be reviewed by town staff and submitted with comments and recommendation to the planning board for review. After the planning board makes its recommendation, the application shall be forwarded to the BOC for consideration.

C) ~~Public Hearing~~ Quasi-Judicial Proceeding Notification Requirements.

The Town shall schedule a ~~public hearing~~ quasi-judicial proceeding for the application and BOC consideration after reasonable opportunity for staff and planning board review by providing public notice no more than thirty days after receipt of the completed application. The notice of a ~~public hearing~~ quasi-judicial proceeding shall be given using the standards set forth is section 3-E of this Ordinance with the exception of the following:

1) The notice shall be given once a week for two successive calendar weeks and published in a newspaper having general circulation within Town. The first publishing shall not be less than ten days or not more than twenty-five days before the date affixed for the hearing. In computing such period, the day of publication is not to be included but the day of the hearing shall be included as documented.

2) All property owners within two hundred feet (200') of the lot boundaries on all sides of the subject lot as listed in the county tax records shall be mailed by the Town a notice of the ~~public hearing~~ quasi-judicial proceeding on the proposed special use application by first class mail at the address listed for such owners on the county tax abstracts. The notice shall identify the location and briefly describe the proposed special use. Section 3-E (2) of this Ordinance gives direction on when the notices shall be mailed.

3) The Town shall prominently post a sign giving notice of the ~~public hearing~~ quasi-judicial proceeding on or immediately adjacent to the subject area reasonably calculated to give public notice of the proposed special use public hearing not more than ten days prior to the hearing date. The wording of such sign should be similar to what is in section 3-E (4) of this Ordinance.

D) Procedures on Special Use Applications.

In considering whether to approve an application for a special use permit, the BOC shall proceed as follows:

1) The BOC shall hold the ~~public hearing~~ quasi-judicial proceeding and consider relevant information regarding whether the required findings under subsection E of this section exist and whether the special use is appropriate in the proposed location. The BOC shall hear relevant information from the applicant, adjoining property owners, the Town Manager, the Planning Board, planning officials, and any interested or affected members of the public. Parties may appear in person, by designee, or by attorney to present information relevant to the requirements of the Ordinance.

2) The BOC shall consider whether the application complies with each individual required finding specified in subsection E of this section. The BOC need not make the required findings at the time of the hearing and may call for additional information if needed. If the special use permit application is approved, the BOC motion shall contain language showing all the required findings under subsection E of this section have been met, and in the absence of specific findings, it shall be conclusively presumed the application complies with all the findings in subsection E of this section.

3) The BOC shall render a decision within a reasonable period of time not to exceed ninety days after holding the ~~public hearing~~ quasi-judicial proceeding for the proposed

special use application. The BOC need not issue a decision at the time of the hearing if additional information is needed andmay continue said hearing until a later date.

4) If the application is found not to be in compliance with one or more of the required findings of subsection E of this section or any other applicable section of this Ordinance, the application shall be denied. Such motion shall specify the particular findings the application fails to meet. It shall be conclusively presumed the application complies with all requirements not noted by the BOC in their motion to deny the application.
5) Notwithstanding the specific requirements of this Ordinance, the BOC may impose additional conditions and reasonable requirements upon the requested special use permit in order to ensure the use is consistent with the required findings as specified under subsection E of this section. The BOC may place an expiration date on the special use permit if a building permit is not secured within a certain period of time. If the special use permit is not renewed periodically by the recipient of the permit, it will expire on the date given to the permit by the BOC.
6) After the BOC renders its decision on the special use permit application, the reasons for granting or denying the application shall be made in writing. A written copy of the conclusion(s) of the BOC about the facts of the case and the board's corresponding decision shall be forwarded to the applicant within ten days.

E) Required Findings.

1) In addition to any other findings or requirements as specified by any other section of this Ordinance, before any application for a special use may be granted or denied, the BOC shall make each of the following findings:
   a) The proposed use is an allowable special use in the zoning district it is being located within;
   b) The application is complete;
   c) The location and character of the use will be in conformity with the Town's land use plan and other comprehensive planning elements;
   d) Streets, driveways, parking lots, traffic control, and any other traffic circulation features shall be designed and provided in accordance with current traffic engineering standards and Town regulations and found to be adequate for the proposed special use;
   e) The proposed special use will not substantially injure the value of adjoining or abutting properties;
   f) The proposed special use will be compatible and in harmony with adjoining land uses and the development patterns of the immediate area; and,
   g) The proposed use will not materially endanger the public health or safety of the community if located where proposed and developed according to the submitted and approved plan.
2) The BOC shall make its findings based on "competent evidence" as described in N.C.G.S. 160A-393 (k) and will be cognizant the statute provides in part "competent evidence "shall not be deemed to include the opinion testimony of lay witnesses as to any of the following:
   a) The use of property in a particular way would affect the value of other property.
   b) The increase in vehicular traffic resulting from a proposed development would pose a danger to the public safety.

c) Matters about which only expert testimony would generally be admissible under the rules of evidence.

3) Compatibility Standards for Special Uses in Residential Zones:
In deciding whether the architectural elements of the proposed special use in a residential zone will be compatible with the adjoining buildings, the BOC shall review said proposal in reference to the following architectural elements:
   a) Size (footprint);
   b) Height;
   c) Proportion and scale;
   d) Roof shape(s);
   e) Setbacks;
   f) Location, size, and number of openings (doors and windows);
   g) Materials;
   h) Color; and,
   i) Texture.

F) Special Use Guidelines.

1) Adult Establishments.
   a) No building, structure, or any portion thereof nor any portion of a lot or parcel or property shall be used for an adult establishment at a location closer than one thousand feet (1000') from any other adult establishment; or closer than one thousand feet (1000') from any residentially zoned property, pre-school, child care, nursery school, day care, K-12 school, public playground, or church situated within the Town limits or the ETJ.
   b) Plans are required and must show:
      i) Locations of buildings and signs and the size of the plan;
      ii) Proposed points of access and egress and patterns of circulation;
      iii) Layout of parking spaces;
      iv) Lighting plan inclusive of wattage and illumination; and,
      v) Landscape plan.

2) Day Care Centers (Including Kindergarten).
   a) One parking space shall be provided for each adult attendant and one parking space provided for every six children or fraction thereof.
   b) Section 19 of this Ordinance gives the screening/buffering and fencing guidelines required for this application.
   c) Plans are required and must show:
      i) Location and approximate size of all existing and proposed structures and buildings within the site and on the lots adjacent thereto;
      ii) Proposed points of access and egress and pattern of circulation;
      iii) Layout of parking spaces;
      iv) Location and extent of open play area(s);
      v) Day care center shall provide one hundred square feet (100 ft^2) of play area space per pupil.

vi) Outdoor play area shall be enclosed by a solid or open fence or wall at least four feet (4') in height. Where the outdoor play area is directly adjacent to a residentially used or zoned lot, a solid fence or wall at least six feet (6') high or the maximum applicable fence or wall height limitation for the district or an open fence at least four feet high (4') and a screen planting designed to grow three feet (3') thick and six feet (6') high shall be created. The BOC may at its discretion, require additional screening/buffering and/or fencing elements to be located adjacent to abutting nonresidential land uses.

vii) In residential districts, a day care center shall not be operated between the hours of 7:00 p.m. and 7:00 a.m. unless with written approval by the BOC.

viii) Landscape plan.

3) Radio or Television Transmitter.

a) Minimum lot area – at least three acres in area.

b) One parking space is required at the site.

c) Plans are required and must show:

i) Location and approximate size of all existing and proposed structures within the site and within one thousand linear feet in all directions;

ii) Proposed points of access and egress;

iii) Proposed off-street parking spaces; and,

iv) Protective fencing at least six feet (6') high with three stands of barbed wire turned out and ten feet (10') from the perimeter of the antenna base shall be established.

4) Telecommunication Tower.

a) Guy-wire towers shall not be permitted.

b) Co-location towers shall be permitted.

c) Height of communication towers shall be regulated by the Federal Aviation Administration (FAA).

d) Communication towers are prohibited in front yards and shall be in compliance with the Telecommunication Act of 1996.

e) Local governments have no ability to prohibit towers on the basis of environmental or health issues according to the Federal Radio Frequency Emission Standards.

f) The BOC may deny a permit based upon a tower's influence on property value or aesthetics.

g) A minimum lot size of one-half acre per tower shall be met; however, the Telecommunication Tower shall be placed on a lot of sufficient size, and in a position on the lot, if the tower falls, no part of it will fall onto adjacent property. Variances shall not be allowed.

h) Landscaping and screening/buffering are required as approved by the planning board and according to section 15 and section 19 of this Ordinance.

i) A six-foot (6') high protective barrier shall be required around the base of the tower. The barrier shall be a masonry wall, chain link fence, solid wood fence, or opaque barrier as described in section 19 of this Ordinance.

j) Setback requirements shall be according to the district in which the tower is located.

k) Towers shall be lighted to satisfy the FAA requirements.

l) Towers shall be removed within ninety days following abandonment of such towers.

m) Towers shall be removed by the property owner within one hundred eighty days following damage or termination of operation resulting in inoperable towers or towers where the owner of the tower shows no intent to repair said tower. Blown over towers shall also be removed by the owner of such tower under this guideline.

n) Any advertising signage is strictly prohibited on towers.

o) Towers shall be painted blue or gray if not otherwise required by the FAA.

p) The owner must provide adequate insurance coverage for any potential damage caused by or caused to the tower.

q) For permitting purposes, site plans are required as defined in section 18 of this Ordinance and shall show all of the following additional features:

   i) Identification of intended user of tower.

   ii) Documentation by registered engineer shows tower has sufficient structural integrity to accommodate more than one user.

   iii) Statement from owner indicating his intent to allow shared use of the tower and how others will be accommodated.

   iv) Evidence the property owners of residentially zoned/used property within three hundred feet of the base of the proposed tower, would be notified prior to the special use application being heard by the BOC.

   v) Documentation which shows towers over a certain height are absolutely necessary for the provision of service (i.e., a tower up to one hundred ninety-six feet (196') cannot provide a reasonable level of service).

r) The BOC shall determine if a tower is in harmony with the area and compatible with adjacent properties and may consider the aesthetic effects of the tower as well as mitigating factors concerning aesthetics. The BOC may disapprove a tower based on the grounds the aesthetic effects are unacceptable and a new site should be proposed. The following factors shall be considered:

   i) Protection of the view in scenic areas, unique natural features, scenic roadways, historic sites, etc.

   ii) Prevention of a concentration of towers in one certain area; and,

   iii) Height, design, placement, and other characteristics could be modified to have a less intrusive visual impact.

5) <u>Marinas</u>.

The requirements below are for marinas and for proper disposal of sewage from boats:

a) All slips over thirty feet (30') shall provide a permanent pump-out connection so a hose of not more than thirty feet (30') can reach the mid-point of the slip.

b) Any vessel with a permanently installed marine sanitation devise shall be located so the holding tank can be pumped-out using a hose not to exceed thirty feet (30').

c) Mobile pump-out equipment may not be used to meet the requirements of subsections 5a) and 5b) of this section.

d) A marina may not charge marina tenants an additional fee to pump-out their holding tanks.

e) When a T-head of a dock is unoccupied during regular business hours, the marina shall provide public access to the pump-out facility for a nominal fee.

6) Office: Small Business.
Property owners may be granted a special use permit for an Office: Small Business in a Residential Zoning District if identified as a *Small Business* as defined in section 4 of this Ordinance.

a) In addition to application requirements outlined in subsection B of this section, special use permit applications must include the following:
   i) Detailed narrative describing the activities associated with the requested use;
   ii) Number of employees requested to work on site;
   iii) Requested business hours of operation;
   iv) Estimated number of clients served on site per day; and,
   v) Detailed drawing or photographs, including measurements, of signage if requested.

b) Signage will be reviewed by the BOC at the time of the special use permit and will meet the following standards:
   i) Not more than one sign is permitted;
   ii) Sign will not exceed an area of two square feet (2 ft^2);
   iii) Colors will be compatible with those of the structure and will not detract from the residential characteristics of the structure;
   iv) Sign will be affixed flatly against the building; and,
   v) Directly lighted and/or neon signage is not permitted.

c) Conditions: The BOC may impose reasonable conditions as it deems necessary for the protection of the public health, general welfare, and public interest regarding:
   i) Compatibility. The compatibility of the proposal, regarding both use and appearance, with the surrounding neighborhood;
   ii) Hours of Operation. The frequency and duration of indoor/outdoor activities and the impact of the surrounding area;
   iii) Noise. The added noise level created by activities associated with the request;
   iv) Parking. The request will not generate a need for additional parking; and,
   v) Appearance. The general appearance will not be adversely affected by the location of the proposed use on the property.

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Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 15, 2021 – Virtual Meeting via Zoom

AGENDA CATEGORY: Public Hearing

SUBJECT: Modify/Revise the Existing Planned Unit Development (PUD) for Beau Coast Subdivision

BRIEF SUMMARY:

The applicant wishes to modify the following standards in the PUD Booklet Dated February 22, 2021 for Beau Coast Subdivision:

- Convert a section of eight (8) 22' wide townhome lots (existing lots 119-126) to four (4) single family lots (50' wide): Net loss of four (4) dwelling units; (See Attachment – A – Vicinity Map for location of lots.)

- Convert two (2) 20 foot wide townhome lots (lots 177 & 178) to one (1) 40' wide single family lot: Net loss of one (1) dwelling unit; o Total net loss of 5 dwelling units. (See Attachment – A – Vicinity Map for location of lots.)

- Add permeable pavement specifications to the PUD document for alleys, on-street parking areas, and sidewalks as an option for use in the PUD;

- Add note regarding lot configuration options

REQUESTED ACTION:

Conduct Public Hearing

Recommendation to Board of Commissioners

EXPECTED LENGTH OF PRESENTATION:

30 Minutes

SUBMITTED BY:

Kyle Garner, AICP

Planning & Inspections Director

BUDGET AMENDMENT REQUIRED:

N/A

Staff Report

To: Planning Board
From: Kyle Garner, AICP

Date: 3/5/2021
Meeting Date: 3/15/2021

Case Number 21-06

Summary of Request:

Request:

- Convert a section of eight (8) 22' wide townhome lots (existing lots 119-126) to four (4) single family lots (50' wide): Net loss of four (4) dwelling units; (See Attachment – A – Vicinity Map for location of lots.)

- Convert two (2) 20 foot wide townhome lots (lots 177 & 178) to one (1) 40' wide single family lot: Net loss of one (1) dwelling unit; o Total net loss of 5 dwelling units. (See Attachment – A – Vicinity Map for location of lots.)

- Add permeable pavement specifications to the PUD document for alleys, on-street parking areas, and sidewalks as an option for use in the PUD;

- Add note regarding lot configuration options

Background

Location(s) & PIN	Lennoxville Road (Multiple)
Owner	Blue Treasure, LLC
Applicant	Withers & Ravenel, Engineers
Current Zoning	PUD
Lot(s) Size & Conformity Status	Conforming
Existing Land Use	Water Well Site & Undeveloped
CAMA Future Land Use Map	Low Density Residential
Amendment Required	☐ Yes ☒ No
Adjoining Land Use & Zoning	**North** Undeveloped Future Tracts, zoned PUD **South** Multi & Single Family Residential, zoned PUD

East Undeveloped Future Lots, zoned PUD
West Undeveloped Future Lots, zoned PUD

Special Flood Hazard Area ☐ Yes ☒ No

Public Utilities

Water	☒ Available	☐ Not Available
Sewer	☒ Available	☐ Not Available

Additional Information Prior to the Public Hearing the applicant will give a history on the project as well as status report.

Requested Action

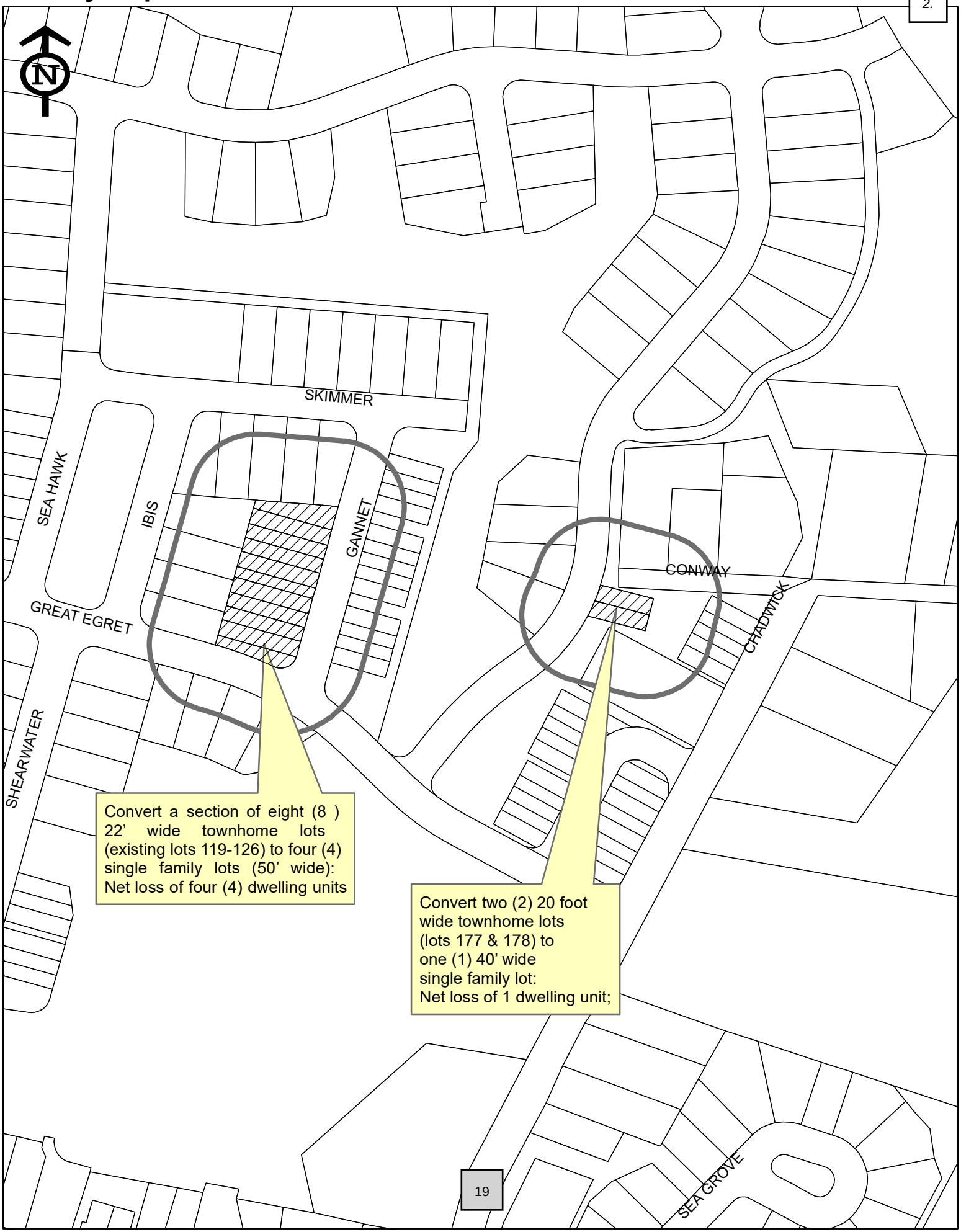
1. Conduct Public Hearing
2. Discussion on request to amend the Master Plan for Beau Coast
3. Recommendation to the Board of Commissioners regarding the amendments to the Master Plan for Beau Coast.
4. Consistency Statement

Attachments:

Attachment – A - Vicinity Map
Attachment – B - Property Owners Within 100 Feet
Attachment – C – PUD Amendment Cover Letter
Attachment – D - Revised PUD Zoning Master Plan
Attachment – E – Beau Coast PUD booklet page 17
Attachment – F - Beau Coast PUD booklet page 18
Attachment – G – Beau Coast PUD booklet page 21

Vicinity Map - Revised Master Plan for Beau Coast of Beaufort East Villa

2.



OWNER	MAIL_H	MAIL_ST	MAIL_CITY	MAII	MAIL_	MAIL_	MAIL_ADD2
BLUE TREASURE LLC			CARY	NC		27519	PO BOX 3557
BLYER,PATRICIA B	424	SKIMMER COVE	BEAUFORT	NC		28516	
COE,PHILLIP V	420	SKIMMER COVE	BEAUFORT	NC		28516	
CONWAY,HILDRED L ETUX SYLV L/T	107	CONWAY RD	BEAUFORT	NC		28516	
DEANS,CHARLES F JR ETUX LISA A	1211	S 1ST STREET	SMITHFIELD	NC	3615	27577	
EATMON,RICHARD T ETUX LOU ANN	939	BROOKSIDE DR NW	WILSON	NC		27893	
GODWIN,DAVID LEE ETUX DEBRA	185	CHADWICK RD	BEAUFORT	NC		28516	
GROGAN,TAMARA S	304	IBIS PLACE	BEAUFORT	NC		28516	
GRUBB,MICHAEL ETAL MART SHULTZ	416	GREAT EGRET WAY	BEAUFORT	NC	0139	28516	
GUAGLIARDI,GARY P ETUX SHERRI	248	SHEARWATER LANE	BEAUFORT	NC		28516	
HUSS,CYNTHIA F ETVIR BRIAN F	318	IBIS PLACE	BEAUFORT	NC		28516	
PUCKETT,TANYA S ETVIR BRADY T	5000	ROCKINGHAM DRIVE	RASWELL	GA	6454	30075	
SCHMIDT,RYAN M ETUX ELIZABETH	7419	TURNER RIDGE ROAD	CRESTWOOD	KY		40014	
STANLEY,RICHARD L ETUX LUCIA			BEAUFORT	NC		28516	PO BOX 150
STREAMLINE DEVELOPERS LLC			MOREHEAD CITY	NC	0006	28557	PO BOX 6

WithersRavenel
Our People. Your Success.

February 18, 2021

Mr. Kyle Garner
Town of Beaufort
Planning & Inspections Director
701 Front Street
Beaufort, NC 28516

RE: Beaufort East Village PUD Amendment #5 – Dated 2/22/2021

Dear Mr. Garner:

Please find attached a Planned Unit Development Amendment dated February 22, 2021 (your official submittal date for such projects) for the Beaufort East Village Planned Unit Development. Digital and hard copies of the revised PUD Booklet and application are included with this submittal. The purpose of this amendment is as follows:

- Convert a section of eight (8) 22' wide townhome lots (existing lots 119-126) to four (4) single family lots (50' wide): Net loss of four (4) dwelling units;
- Convert two (2) 20 foot wide townhome lots (lots 177 & 178) to one (1) 40' wide single family lot: Net loss of one (1) dwelling unit;
    - Total net loss of 5 dwelling units
- Add permeable pavement specifications to the PUD document for alleys, on-street parking areas, and sidewalks as an option for use in the PUD;
- Add note regarding lot configuration options

Please review these proposed amendment items and contact us with any questions.

Sincerely,
WithersRavenel

Don Mizelle
Director of Project Delivery

BEAUFORT EAST VILLAGE

PLANNED UNIT DEVELOPMENT AMENDMENT

FEBRUARY 22, 2021

PREPARED FOR: BLUE TREASURE, LLC

PRESTON DEVELOPMENT COMPANY

WithersRavenel
Engineers | Planners | Surveyors
115 Mackenan Drive, Cary NC 27511

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   - iii. BC 39 C (2306 sq ft)
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   - v. BC 39 E (2964 sq ft)
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   - iv. BEV 26 D (1832 sq ft)
3. Single Family: 40' Wide 2 Car Garage Collection.....31
   - i. BEV 40 A (2228 sq ft)
   - ii. BEV 40 B (2335 sq ft)
   - iii. BEV 40 C (2529 sq ft)
   - iv. BEV 40 D (2791 sq ft)
   - v. BEV 40 E (2925 sq ft)

Chapter 1. Planned Unit Development Elements

Introduction

The Existing Planned Unit Development

The Beaufort East Village Planned Unit Development (PUD) consists of approximately 283 acres of land situated between Taylor Creek and Turner's Creek in Beaufort, North Carolina. The existing PUD document was approved on September 8, 2008 by the Town of Beaufort Board of Commissioners and allowed for up to 671 total dwelling units with a mix of residential, commercial, and amenity uses. The vision for the PUD was centered upon creating "… a natural continuation of Beaufort, with new and exciting homes and amenities."

The PUD contains several design elements that emulate local land planning principals which serve to support the vision of a natural continuation of the town. Such elements include narrow pedestrian-oriented street designs with on-street parking, street trees, and sidewalks that encourage slow speed vehicular traffic. The position and orientation of the planned dwelling units relative to the public streetscape also supports the vision for the PUD.

A majority of the home sites are situated adjacent to natural areas or other open space features. The PUD is well connected internally with a system of pedestrian paths and sidewalks that allow for convenient access to various neighborhoods and amenities within Beaufort East Village.

Since the approval of Beaufort East Village in 2008, the following development activities have occurred:

- 16.05 acres of land and was dedicated to the Town of Beaufort for waste water utility sites and a well site and water tank sites;
- Construction of permitted wetland impacts was completed;
- Installation of landscaping and hardscapes for the future Shearwater Lane South corridor was completed; and
- Construction plans were approved by the Town of Beaufort for Phase 1A, 1B, and 1C of Beaufort East Village .

The Proposed Planned Unit Development Amendment

Blue Treasure, LLC, the owners and developers of Beaufort East Village, propose to amend the existing PUD document to allow a greater variety of housing options for a wider range of potential residents. The introduction of specific types of attached single family (townhomes) lots into the PUD supports this effort.

The following general modifications to the existing PUD Master Plan are proposed:

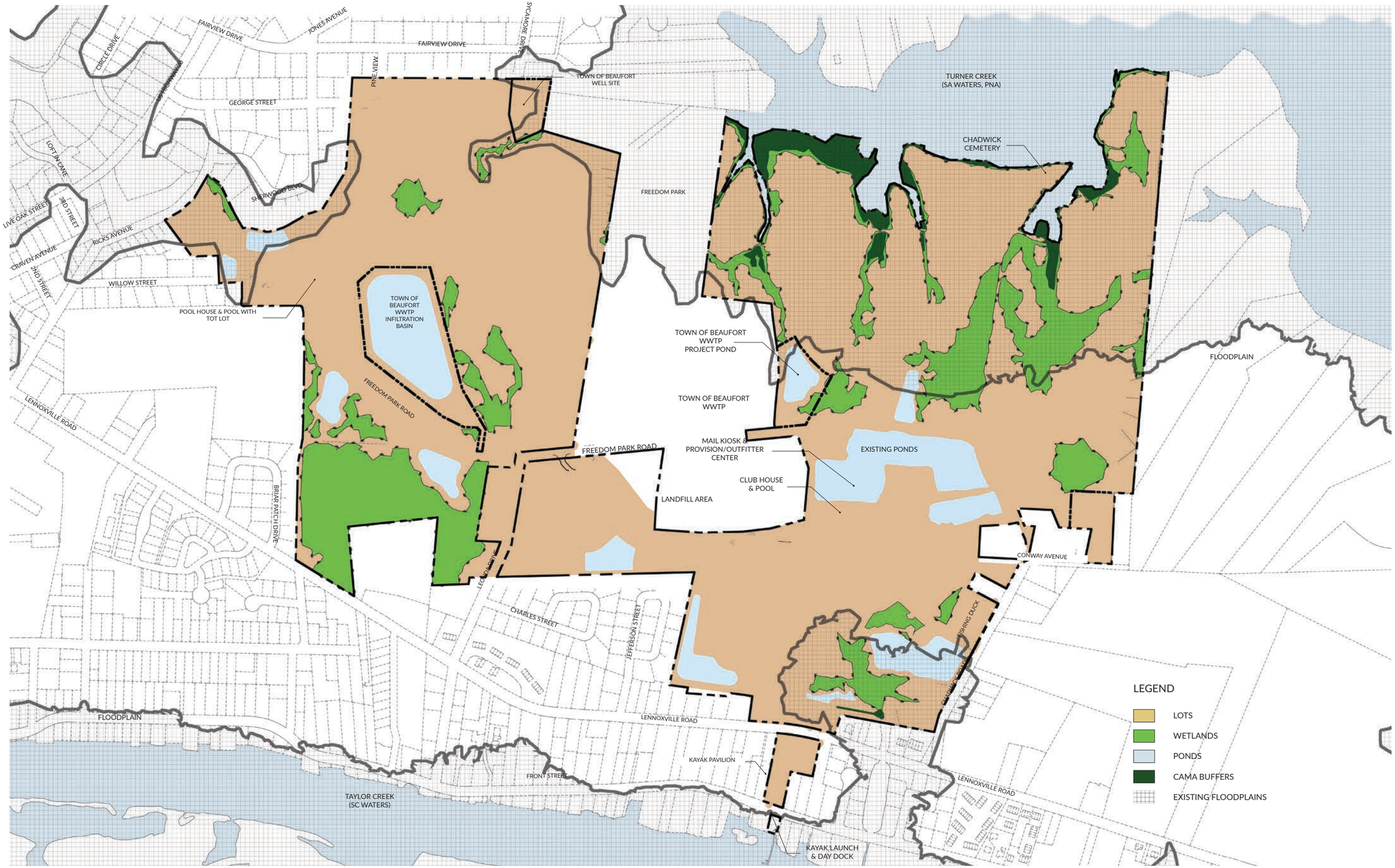
- Reconfiguration of the internal street and lot layout to improve the overall project design;
- Increase in overall proposed density from 2.458 dwelling units per acre to 2.9 dwelling units per acre;
- Increase in open space area from 36% to 38%;
- Removal of the central commercial Town Center concept;
- Revision to the planned street cross-sections to provide wider sidewalks and additional on-street parking options; and
- Revisions to the Master Plan to reflect compliance with State stormwater/watershed standards. Incorporation of lower density development options within the Turner Creek watershed portion of the property and provisions for stormwater management devices (BMPs) to address pockets of higher density development within the project boundary.

Planned Unit Development master plans often evolve over the lifetime of the project to better meet the needs of the community and the ever-changing real estate market. This amendment seeks to update the 2008 Beaufort East Village PUD document so that it continues to meet the goals originally envisioned in 2008 while addressing the needs of today and beyond.

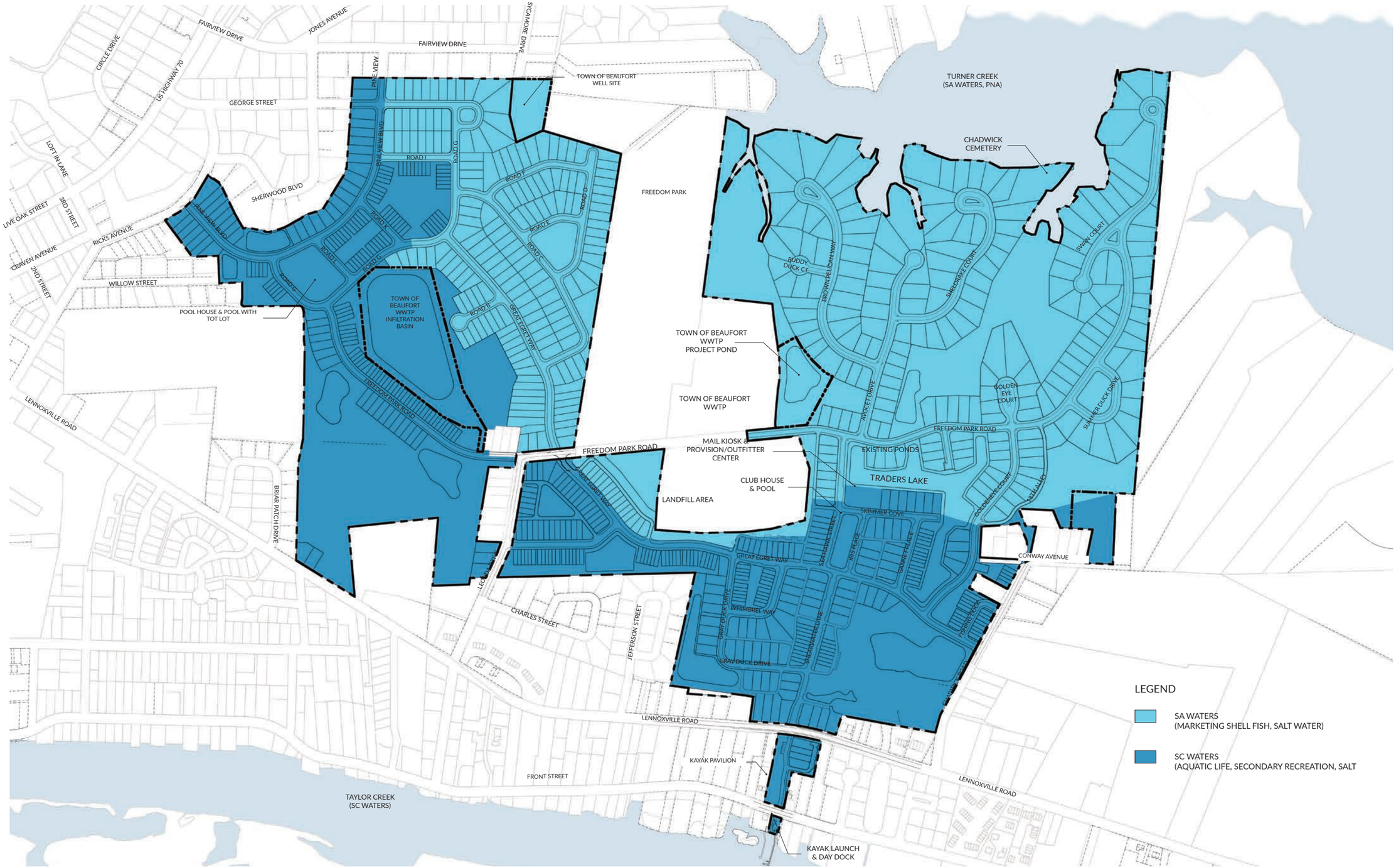
Aerial of the Site

All the drawings are conceptual and actual conditions may vary.

Existing Conditions Plan

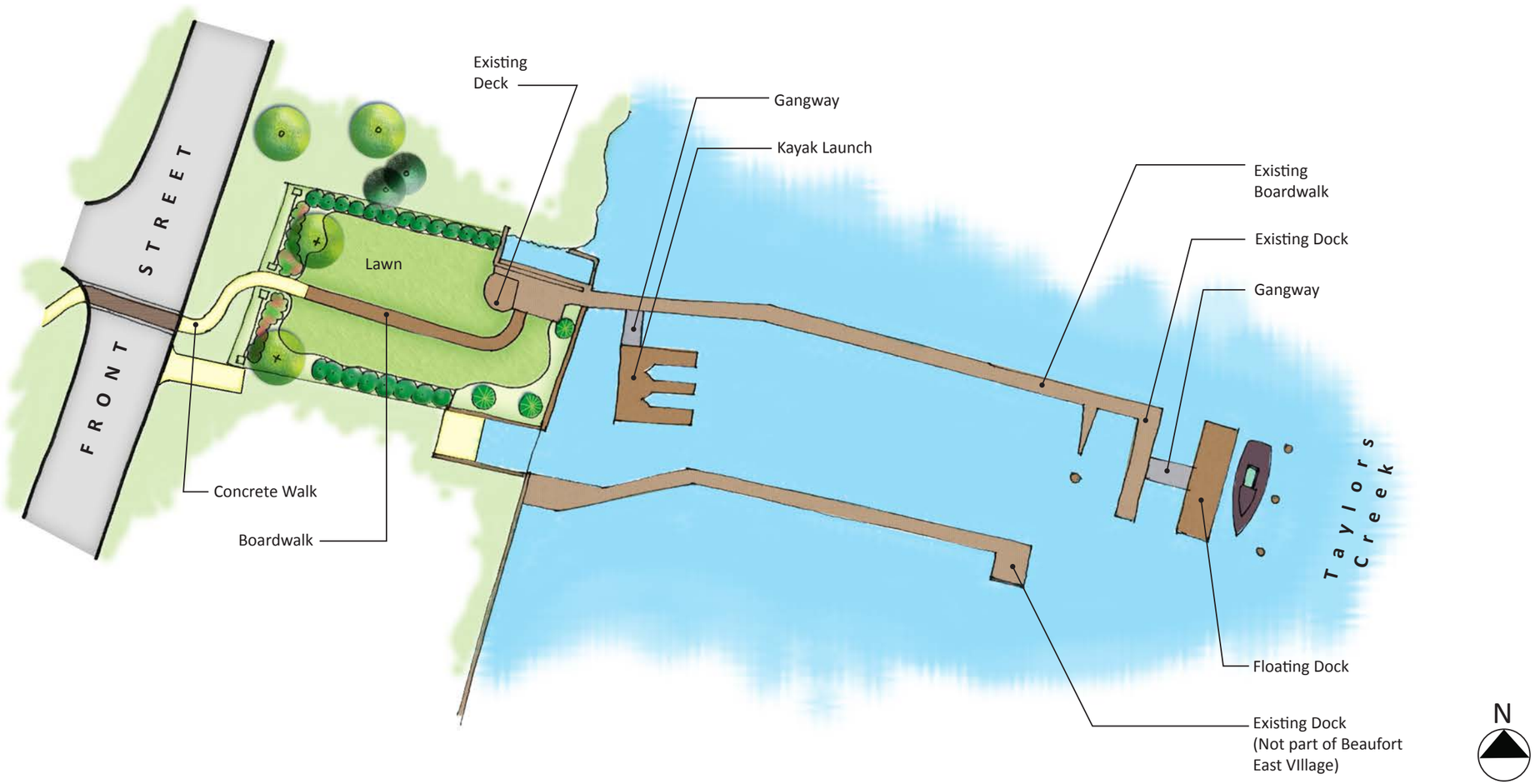


Site Watershed Map

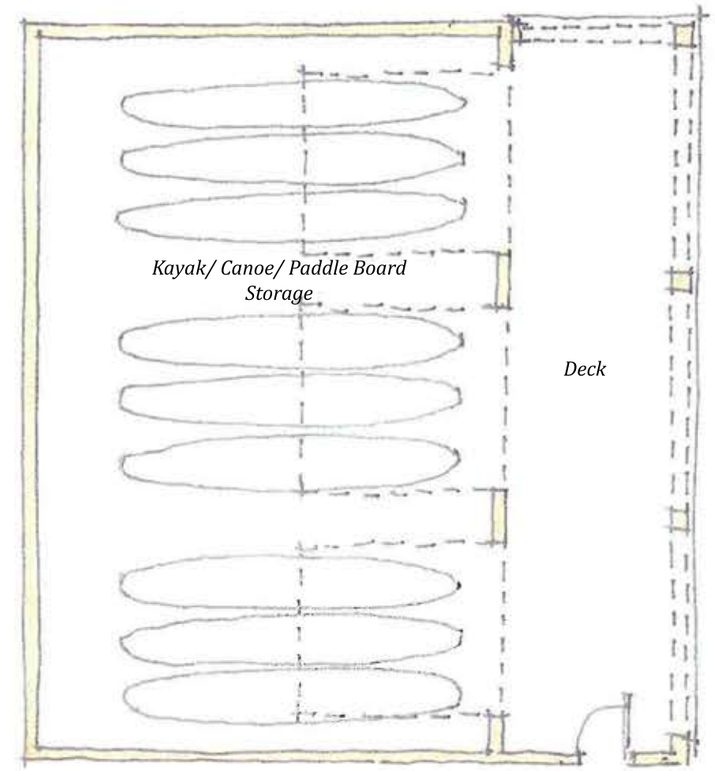


Conceptual Land Use Plan

Conceptual Plan Detail – Kayak Launch & Day Dock

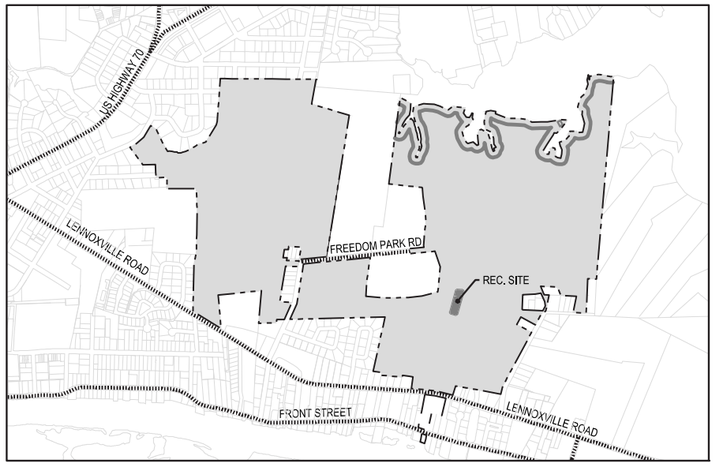


Kayak Pavilion

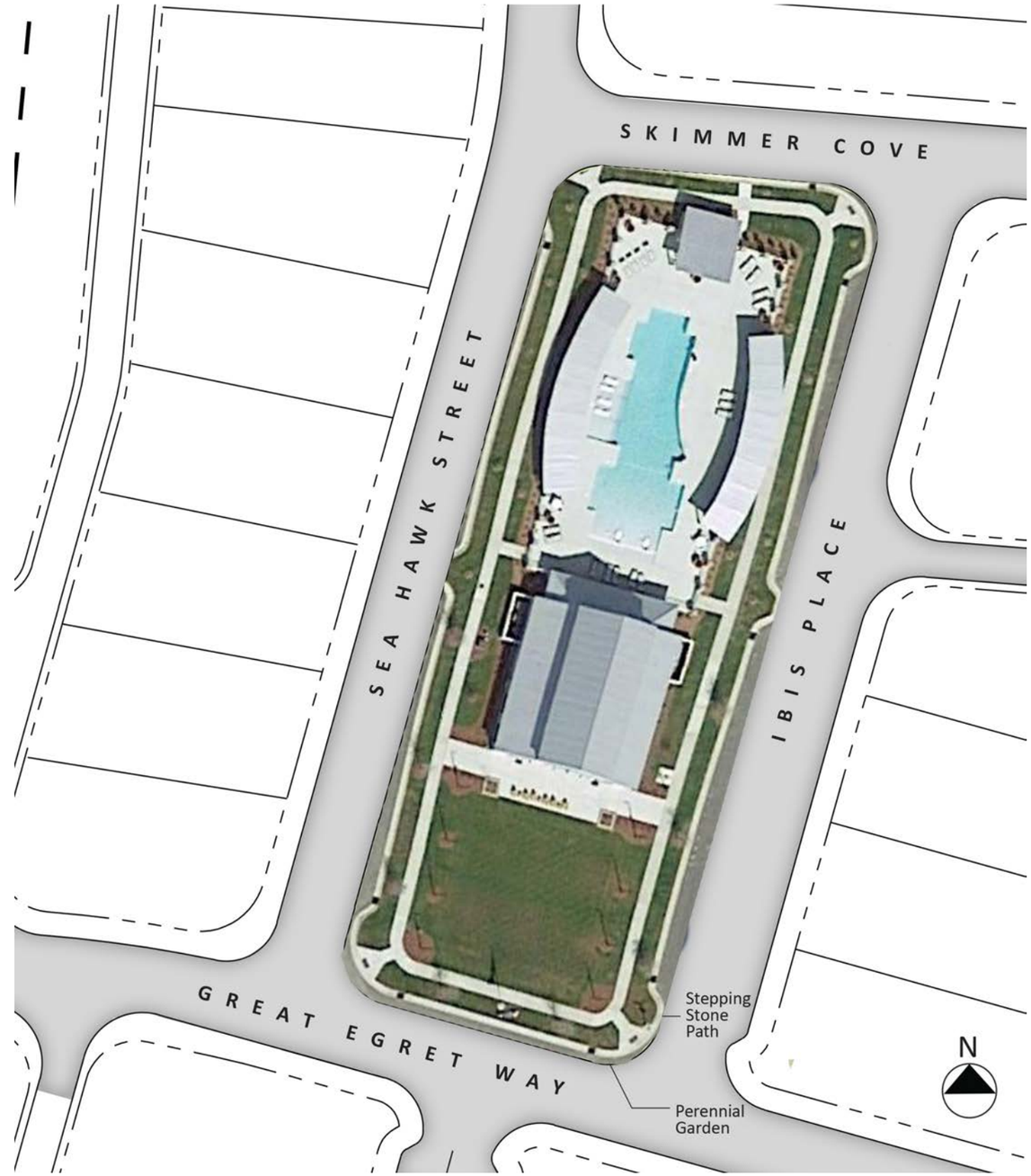


Floor Plan

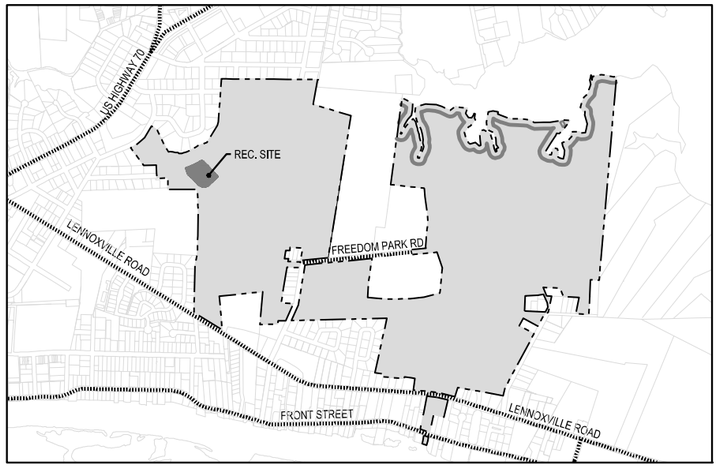
Pool and Clubhouse Detail (Beau Coast Neighborhood)



VICINITY MAP
SCALE: 1" = 1000'



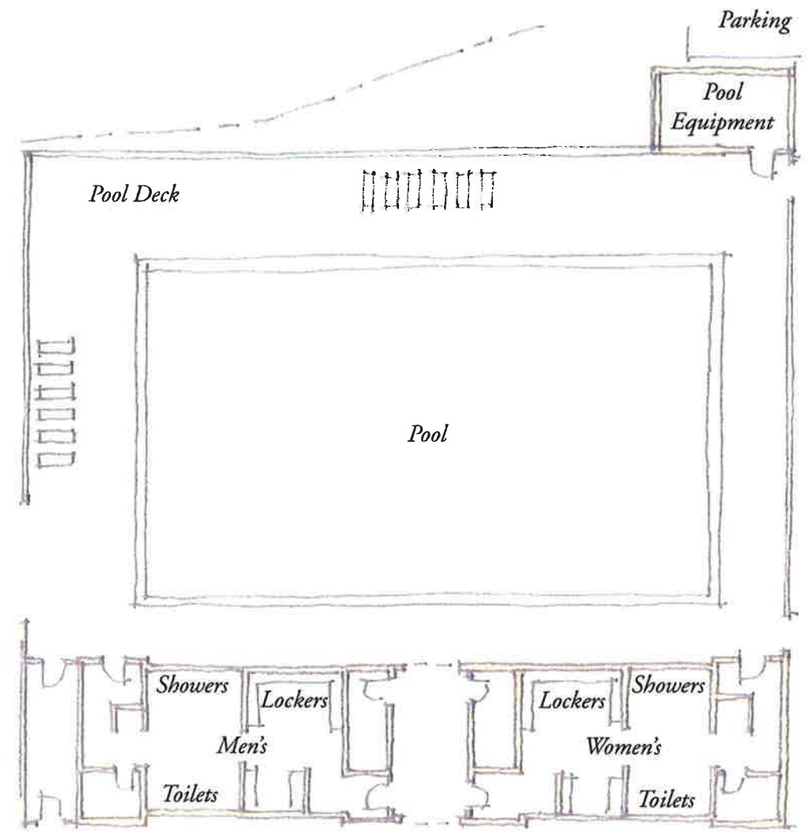
Conceptual Pool and Tot Lot Detail (Beaufort East Village Neighborhood)



VICINITY MAP
SCALE: 1" = 1000'

Conceptual architecture - Pool and Clubhouse for Beaufort East Village

Conceptual Imagery

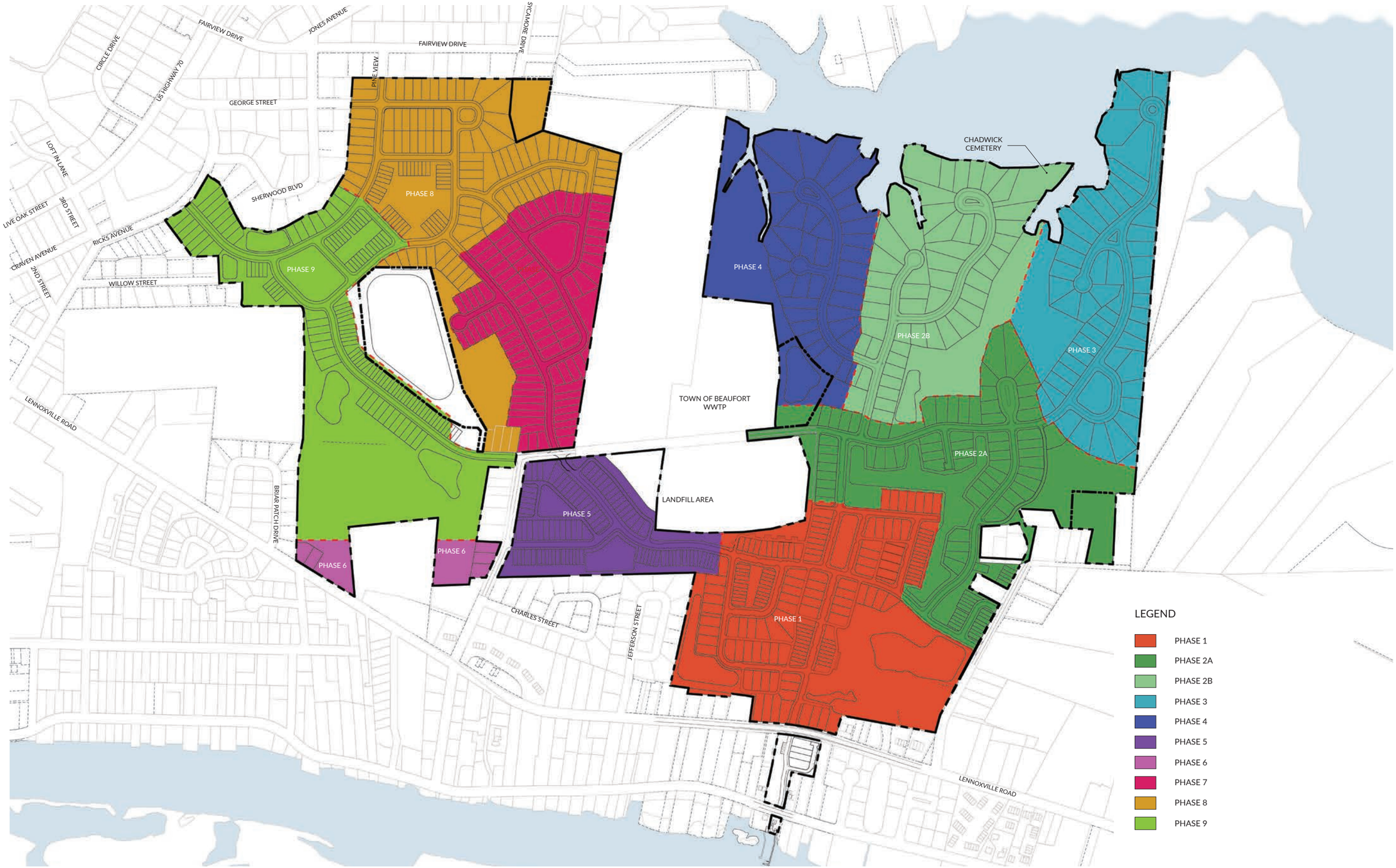


Floor Plan

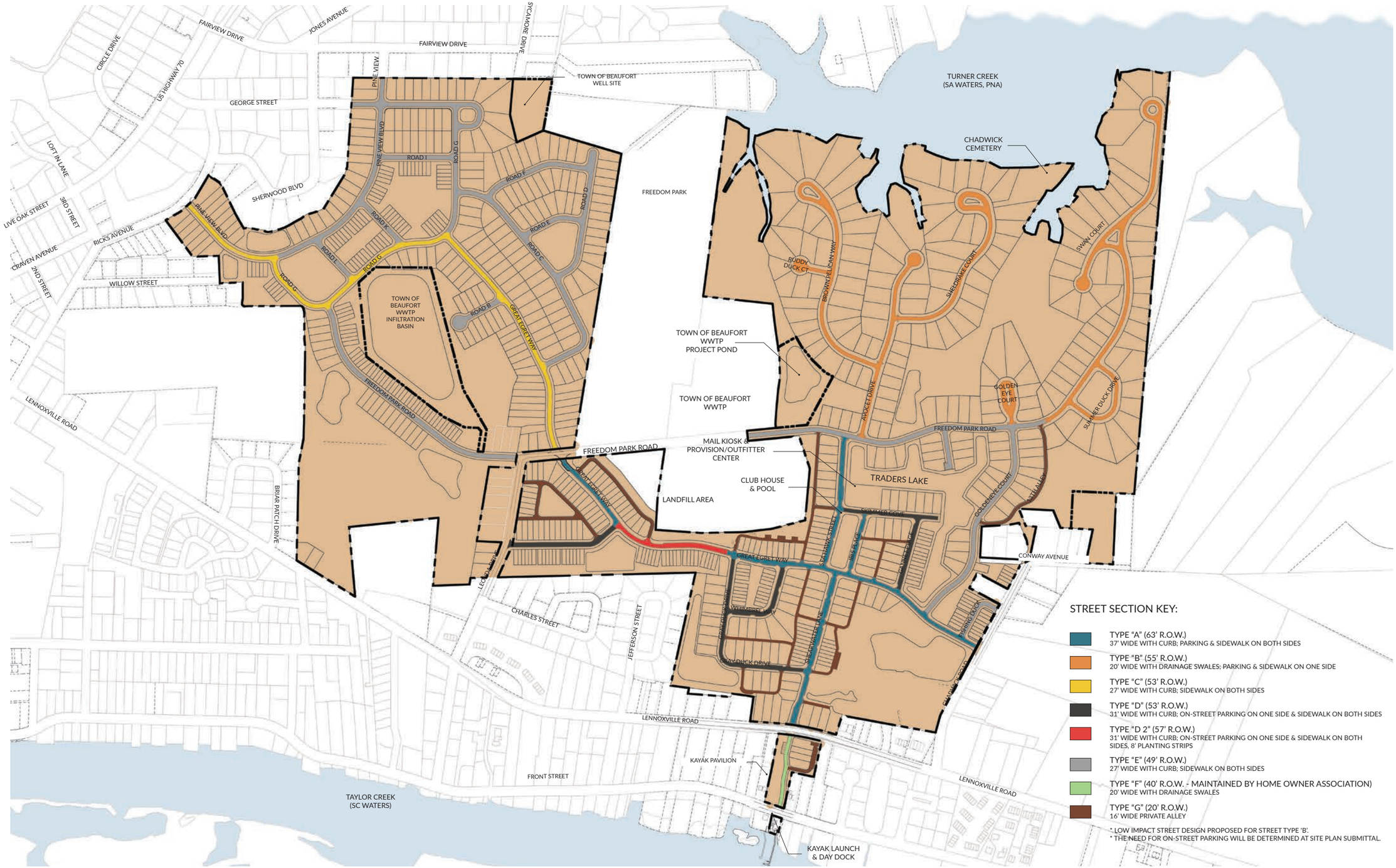
Photos from Spring Island (Okatie, South Carolina) and Ford Plantation (Richmond Hill, Georgia)

All drawings are conceptual in nature and actual conditions may vary.

PUD Phasing Plan

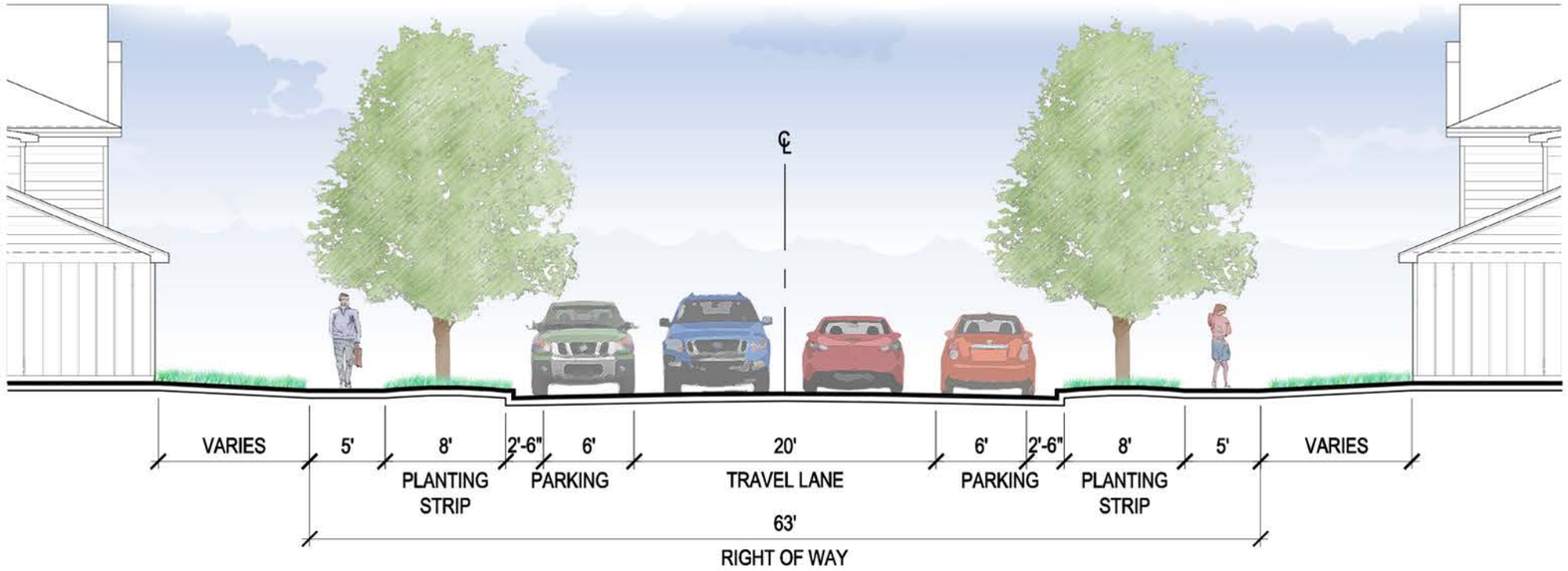


Key Plan for Street Cross Sections

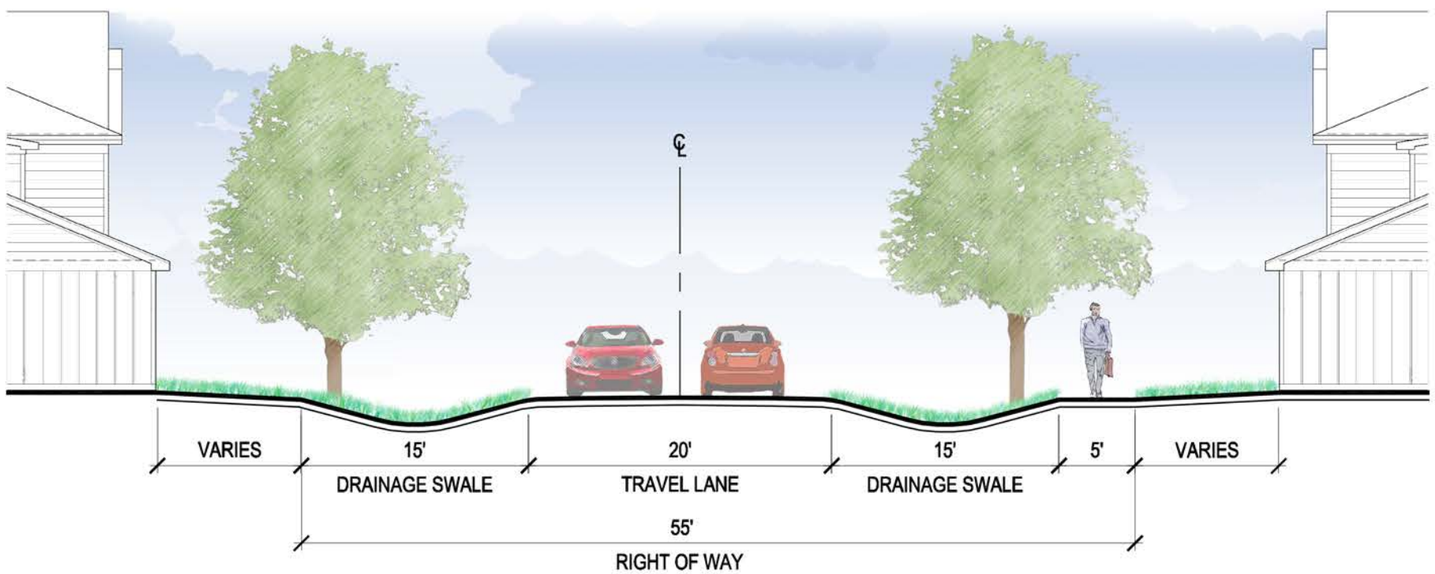


Street Cross Sections

*NOTE: The need for on-street parking will be determined at site plan submittal.

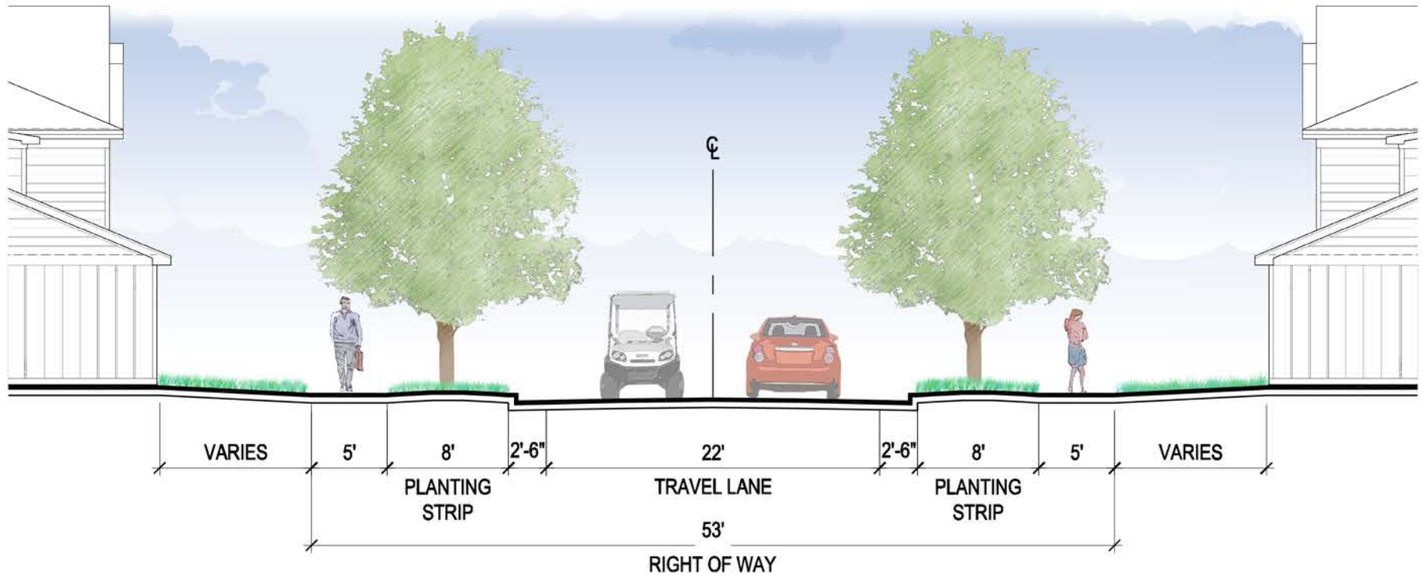


Street Cross Section Type A

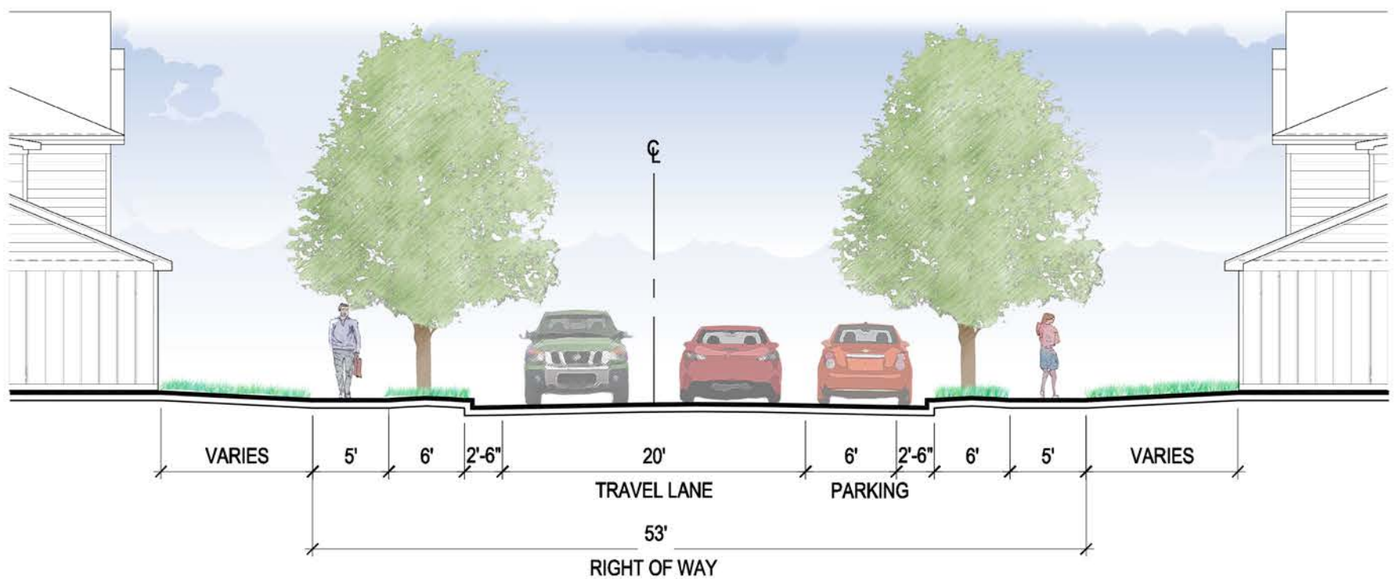


Street Cross Section Type B

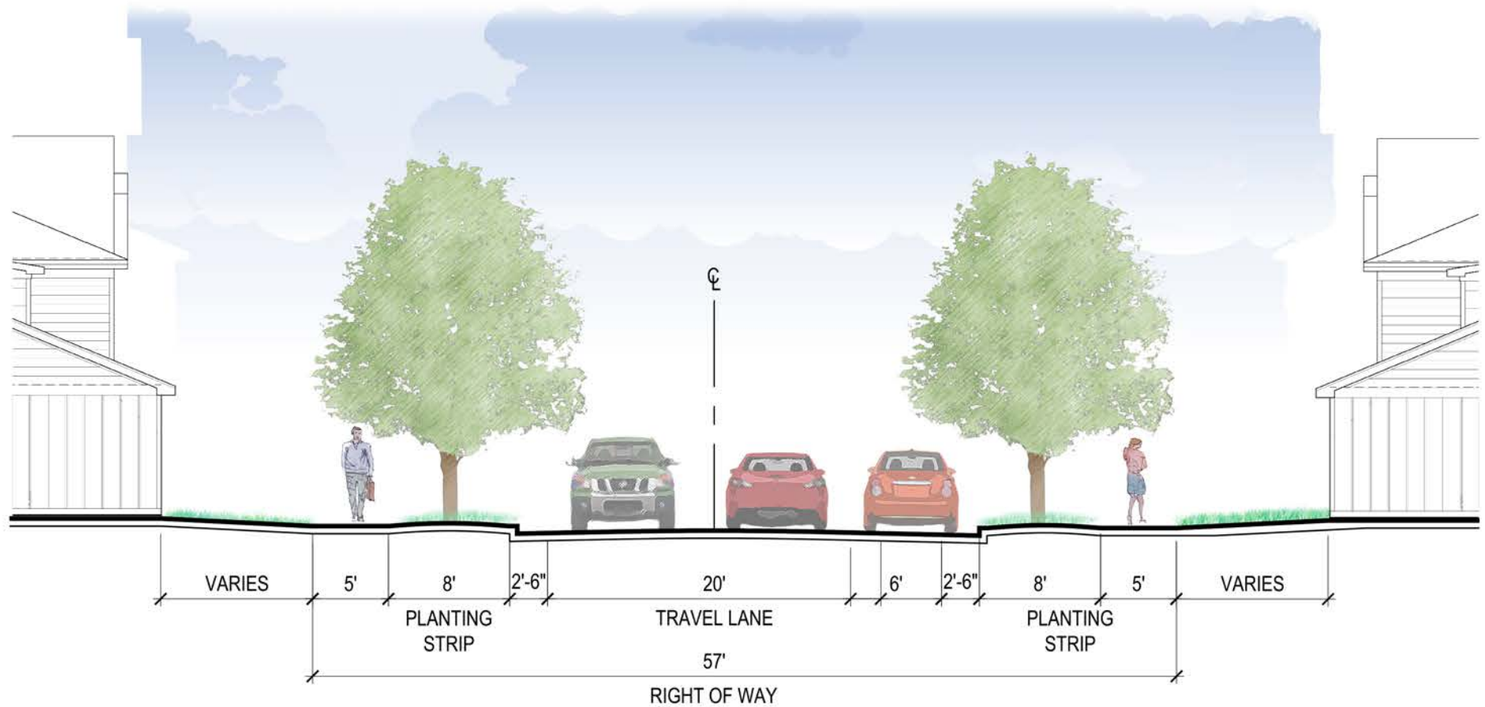
Street Cross Sections



Street Cross Section Type C

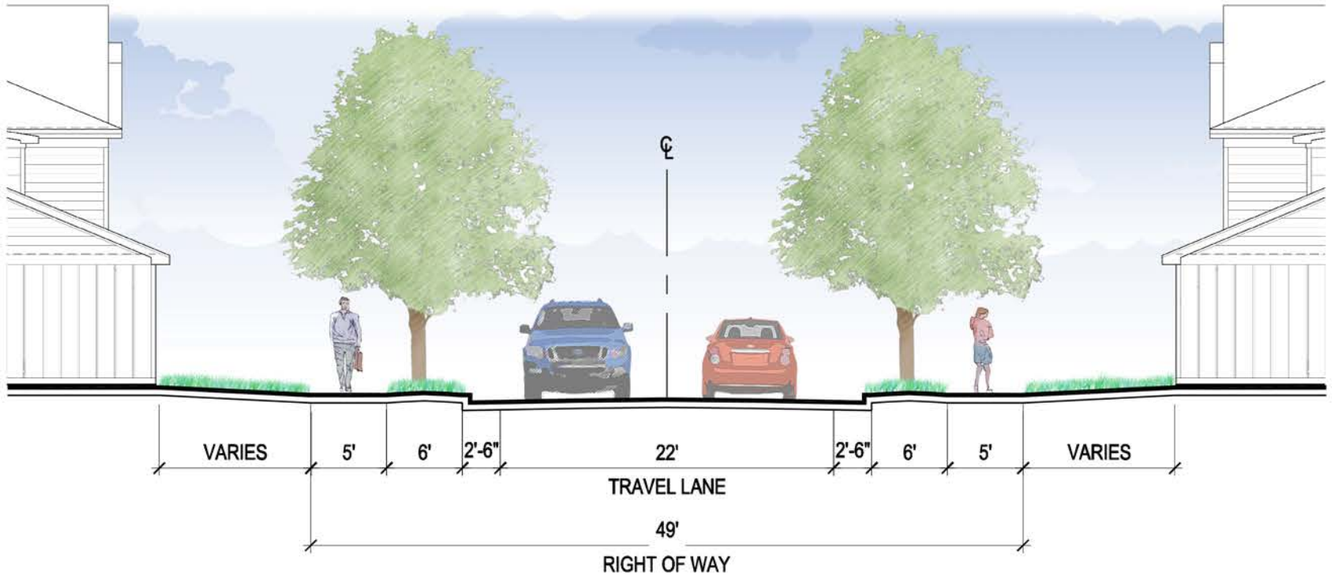


Street Cross Section Type D

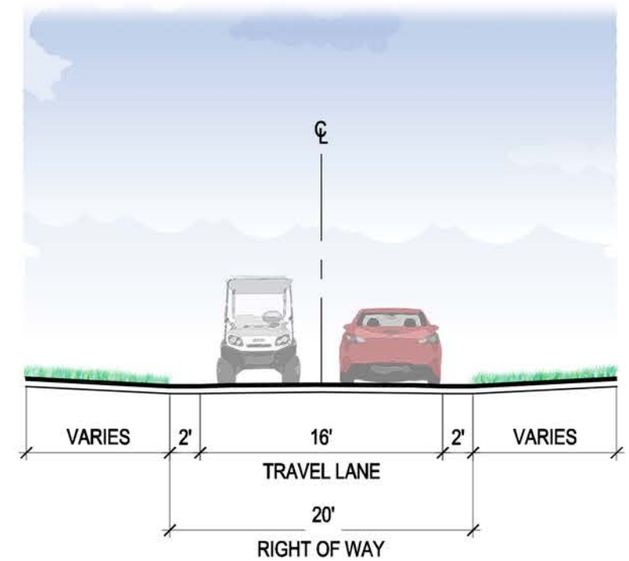


Street Cross Section Type D2

Street Cross Sections

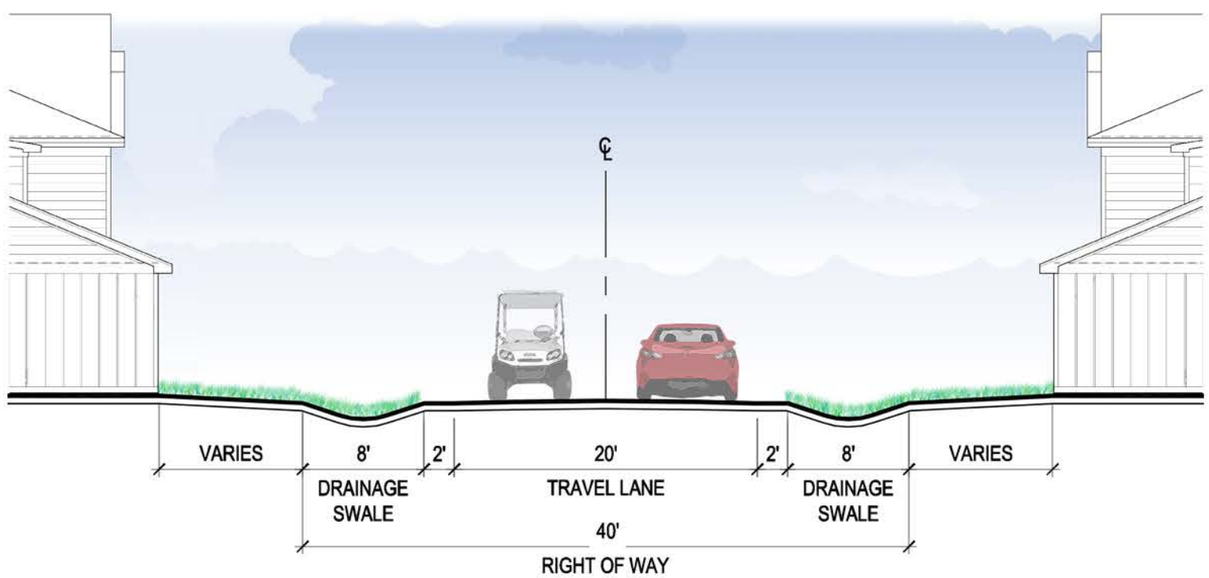


Street Cross Section Type E



Street Cross Section Type G

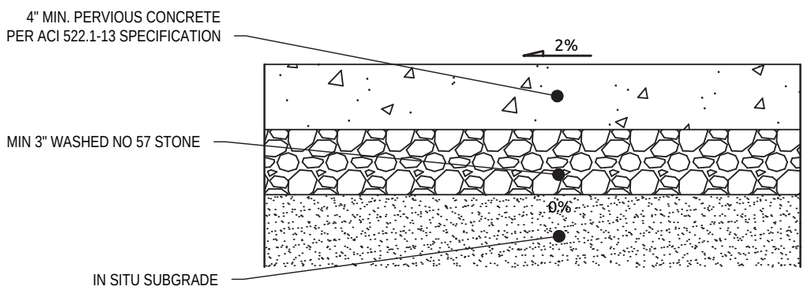
*NOTE: To be maintained by HOA



Street Cross Section Type F

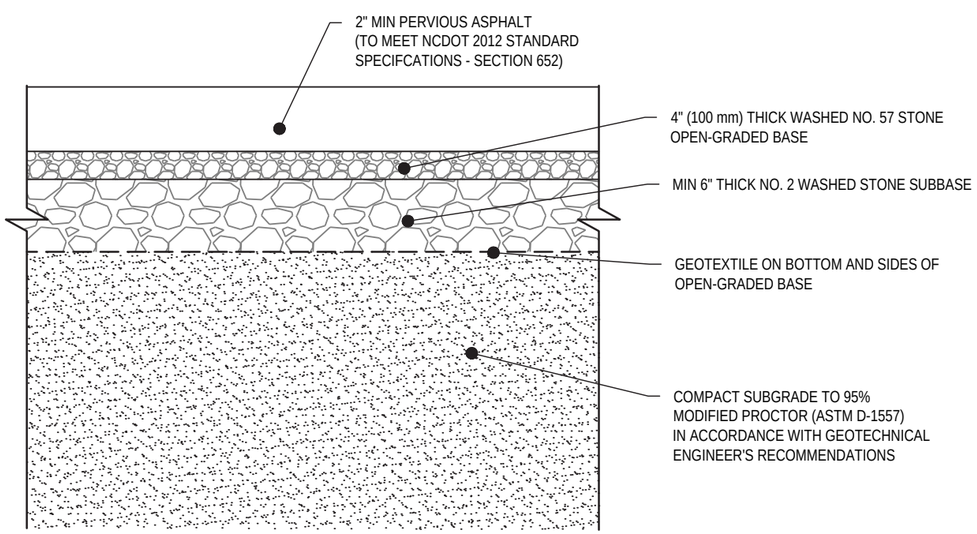
Permeable Paving Options

The developer of Beaufort East Village PUD may elect to utilize these permeable paving options for the areas cited below. These permeable pavement options are not required to be used. Minor variations to these design specifications can be approved by Town engineering staff without a PUD amendment.



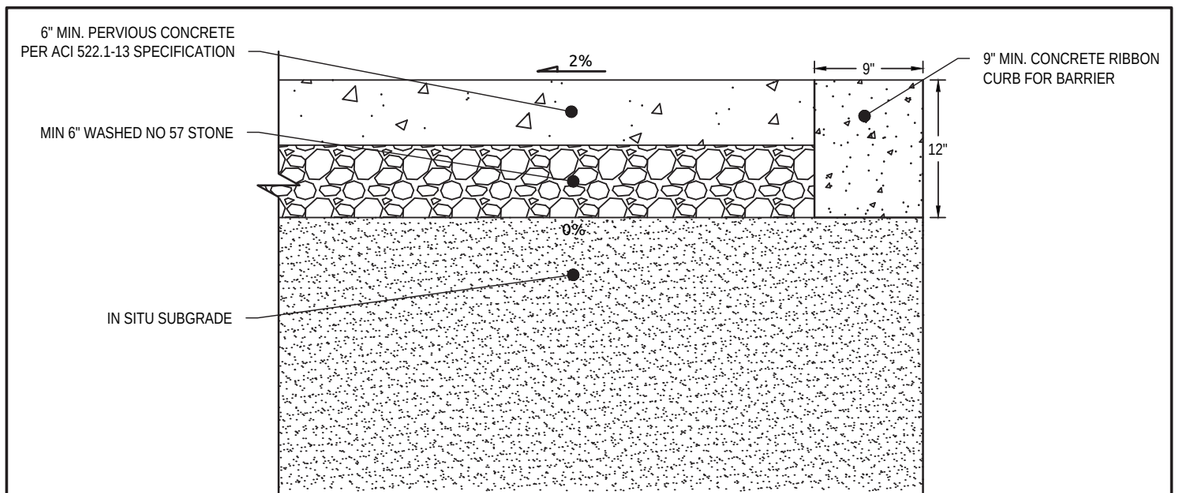
PERVIOUS CONCRETE SIDEWALK DETAIL

NTS



PERVIOUS ASPHALT IN ALLEY AREAS DETAIL

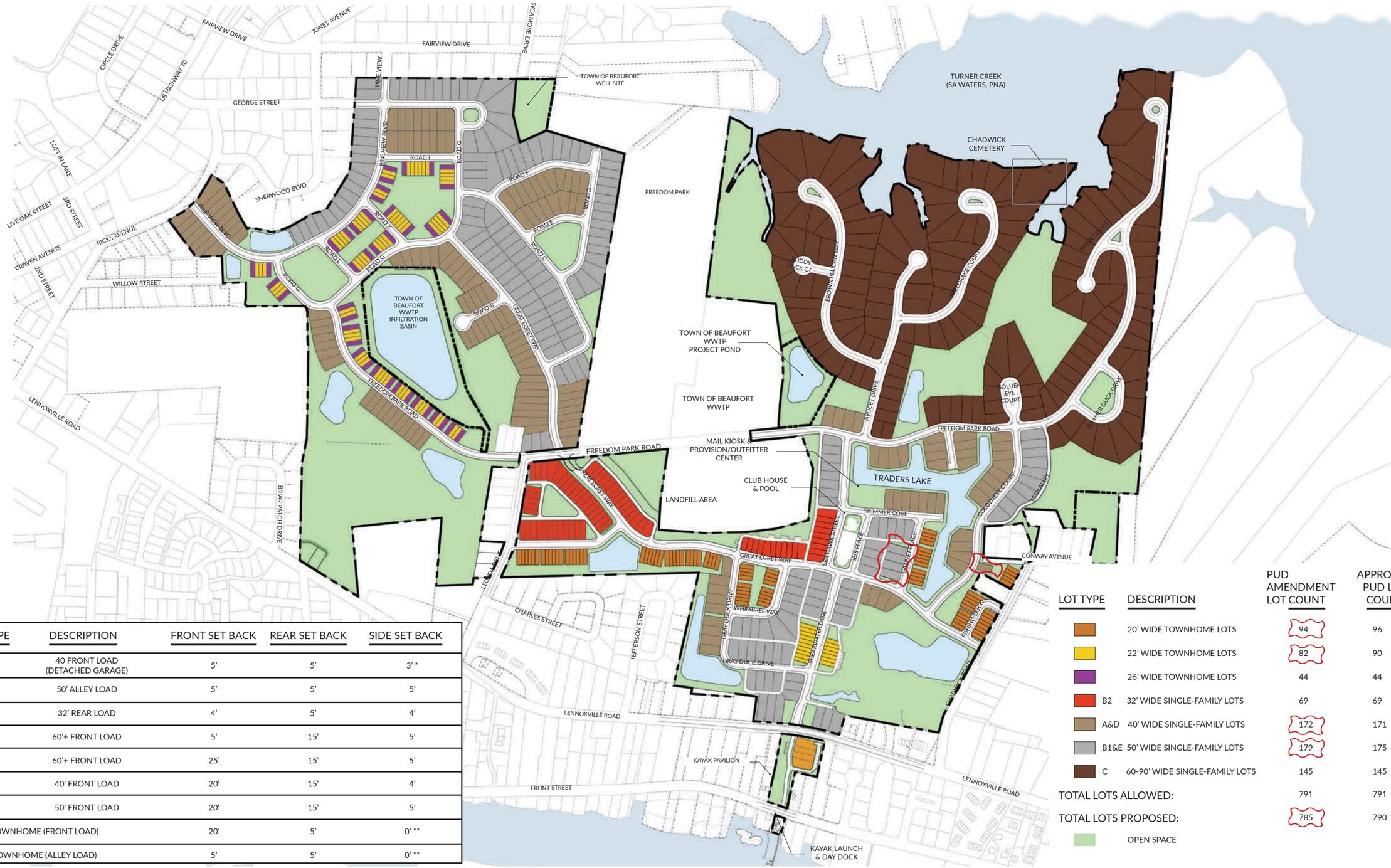
NTS



PERVIOUS CONCRETE IN ALLEYS & PRIVATE PARKING AREAS DETAIL

NTS

Key Plan for Lot Types

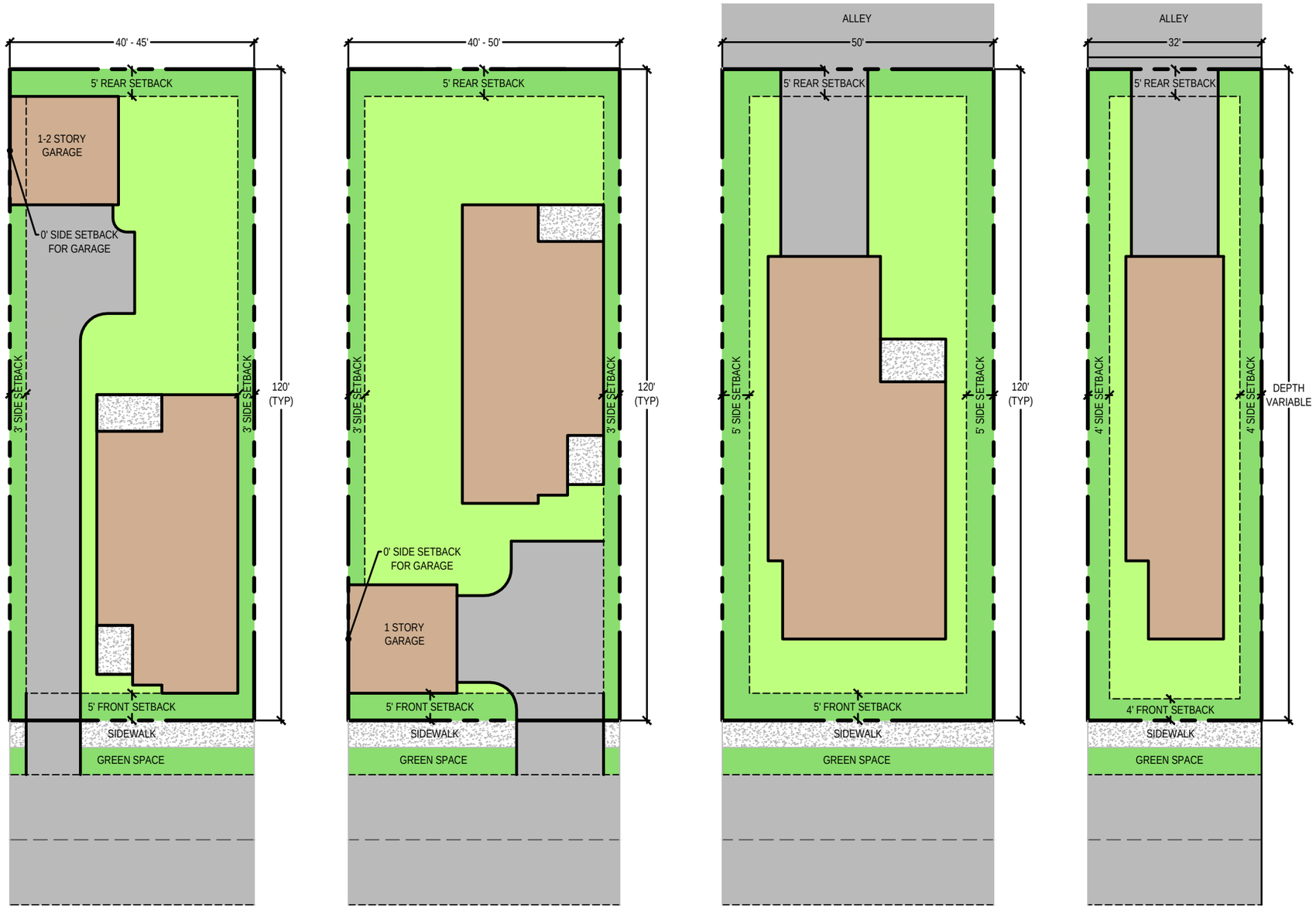


LOT TYPE	DESCRIPTION	FRONT SET BACK	REAR SET BACK	SIDE SET BACK
A	40 FRONT LOAD (DETACHED GARAGE)	5'	5'	3' *
B	50' ALLEY LOAD	5'	5'	5'
B2	32' REAR LOAD	4'	5'	4'
C(1)	60'+ FRONT LOAD	5'	15'	5'
C(2)	60'+ FRONT LOAD	25'	15'	5'
D	40' FRONT LOAD	20'	15'	4'
E	50' FRONT LOAD	20'	15'	5'
TOWNHOME (FRONT LOAD)		20'	5'	0' **
TOWNHOME (ALLEY LOAD)		5'	5'	0' **

* ONE-STORY DETACHED GARAGES W/O HABITABLE SPACE MAY HAVE 0' SIDE SETBACK
** TOWNHOME BUILDING TO BUILDING SEPARATION IS A MINIMUM OF 10'.

LOT TYPE	DESCRIPTION	PUD AMENDMENT LOT COUNT	APPROVED PUD LOT COUNT
	20' WIDE TOWNHOME LOTS	94	96
	22' WIDE TOWNHOME LOTS	82	90
	26' WIDE TOWNHOME LOTS	44	44
B2	32' WIDE SINGLE-FAMILY LOTS	69	69
A&D	40' WIDE SINGLE-FAMILY LOTS	172	171
B1&E	50' WIDE SINGLE-FAMILY LOTS	179	175
C	60-90' WIDE SINGLE-FAMILY LOTS	145	145
TOTAL LOTS ALLOWED:		791	791
TOTAL LOTS PROPOSED:		785	790
	OPEN SPACE		

Beau Coast Conceptual Lot Types



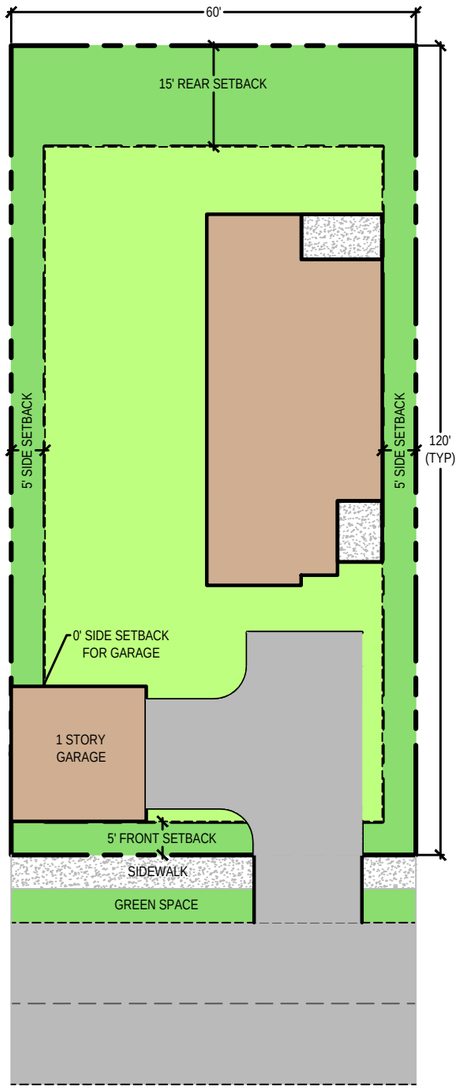
LOT TYPE A
BEAU COAST - 40' FRONT LOAD w/ DETACHED GARAGE
* OPTIONAL TWO-STORY GARAGE w/ HABITABLE SPACE SHALL HAVE THE SAME SETBACKS AS THE PRIMARY STRUCTURE

LOT TYPE B1
BEAU COAST - 50' ALLEY LOAD

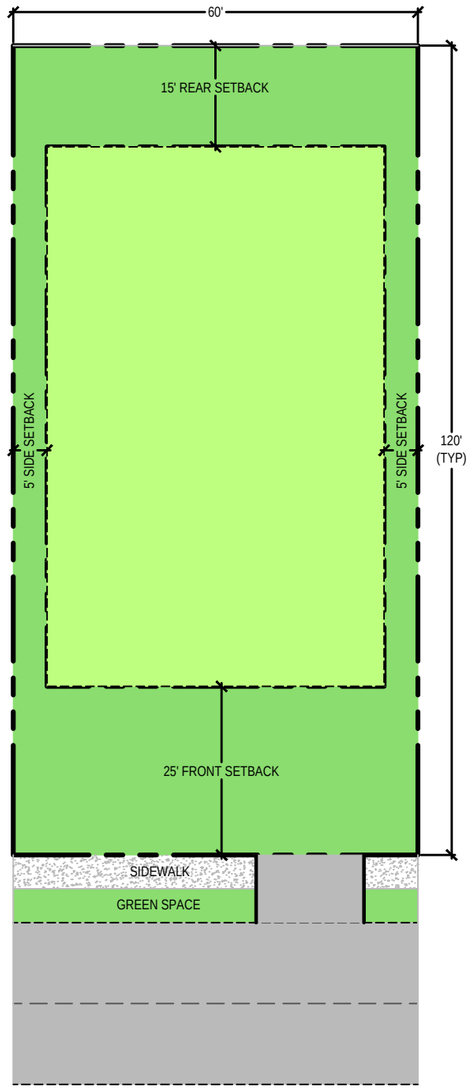
LOT TYPE B2
BEAU COAST - 4' SETBACK
32' REAR ALLEY LOAD

* The conceptual single family lot types above may be placed anywhere within the PUD boundary so long as the home and lot configurations meet the setbacks and minimum lot dimensions and as set forth in the PUD document (Key Plan for lot types table of setbacks)

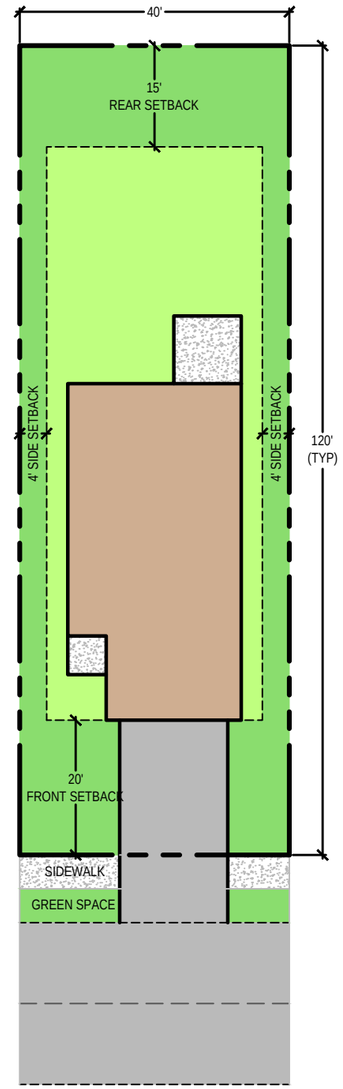
Beaufort East Village Conceptual Lot Types



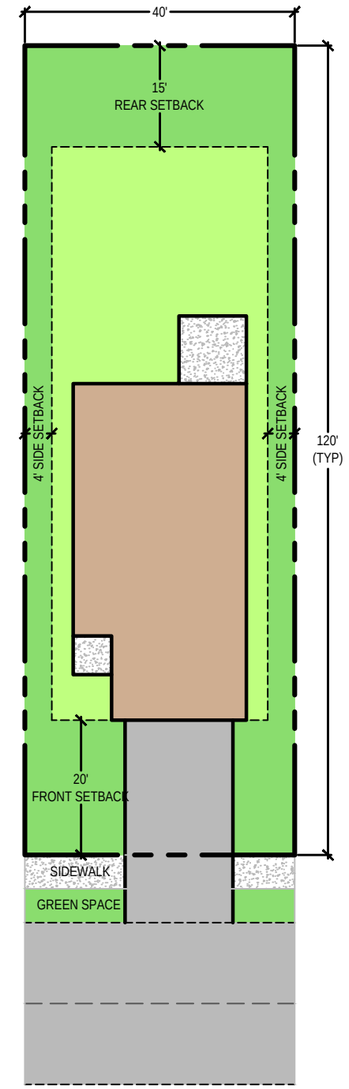
LOT TYPE C (OPTION 1)
BEAU COAST - 60' TO 90' FRONT LOAD
WITH DETACHED GARAGE



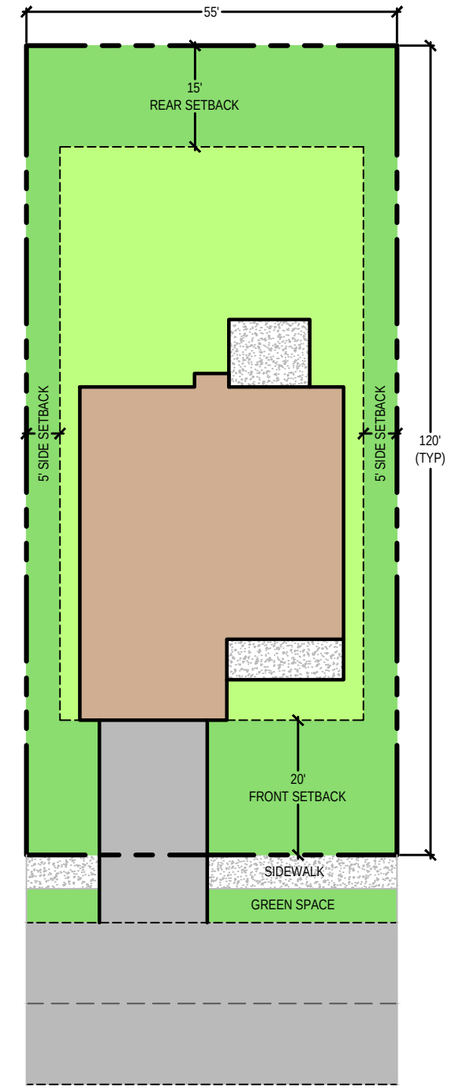
LOT TYPE C (OPTION 2)
BEAU COAST - 60' TO 90'
FRONT LOAD



LOT TYPE D
BEAUFORT
EAST VILLAGE - 40' FRONT LOAD



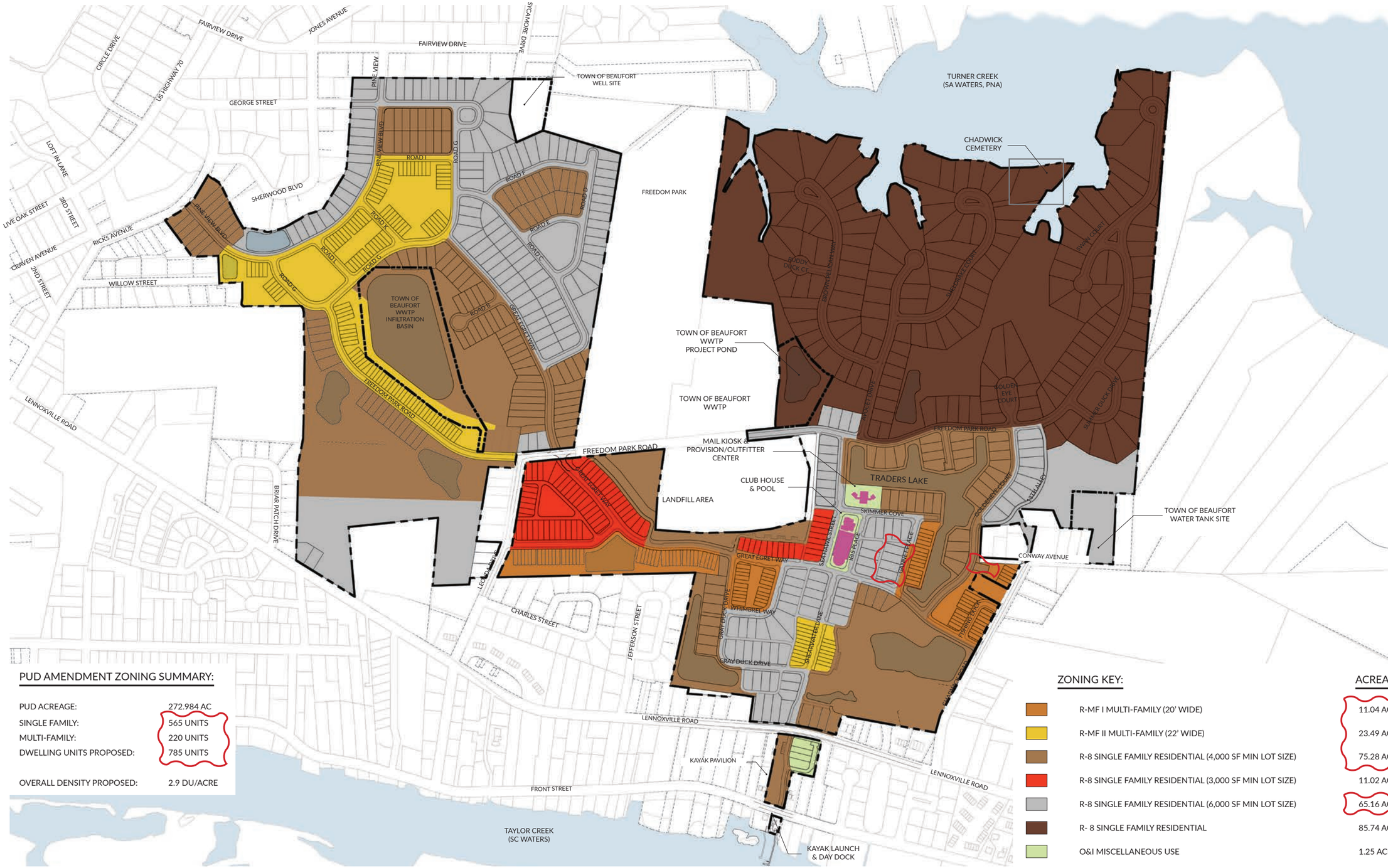
LOT TYPE D
BEAU COAST - 40' FRONT LOAD



LOT TYPE E
BEAUFORT
EAST VILLAGE - 50' FRONT LOAD

* The conceptual single family lot types above may be placed anywhere within the PUD boundary so long as the home and lot configurations meet the setbacks and minimum lot dimensions and as set forth in the PUD document (Key Plan for lot types table of setbacks)

PUD Master Zoning Plan



PUD AMENDMENT ZONING SUMMARY:

PUD ACREAGE:	272.984 AC
SINGLE FAMILY:	565 UNITS
MULTI-FAMILY:	220 UNITS
DWELLING UNITS PROPOSED:	785 UNITS
OVERALL DENSITY PROPOSED:	2.9 DU/ACRE

ZONING KEY:	ACREAGE:
R-MF I MULTI-FAMILY (20' WIDE)	11.04 ACRES
R-MF II MULTI-FAMILY (22' WIDE)	23.49 ACRES
R-8 SINGLE FAMILY RESIDENTIAL (4,000 SF MIN LOT SIZE)	75.28 ACRES
R-8 SINGLE FAMILY RESIDENTIAL (3,000 SF MIN LOT SIZE)	11.02 ACRES
R-8 SINGLE FAMILY RESIDENTIAL (6,000 SF MIN LOT SIZE)	65.16 ACRES
R- 8 SINGLE FAMILY RESIDENTIAL	85.74 ACRES
O&I MISCELLANEOUS USE	1.25 ACRES

PUD Open Space Plan

LAND DEDICATED TO TOWN BY DEVELOPER 16.05 ACRES

OPEN SPACE CALCULATIONS:

TOTAL OPEN SPACE REQUIRED: (41 AC) 15%

TOTAL OPEN SPACE PROVIDED: (99.32 AC) 36%

OPEN SPACE KEY:

TOTAL ACREAGE: **272.98 AC**

PARKS, PLAZAS, PONDS & RECREATION SPACE (99.32 AC - 36%)

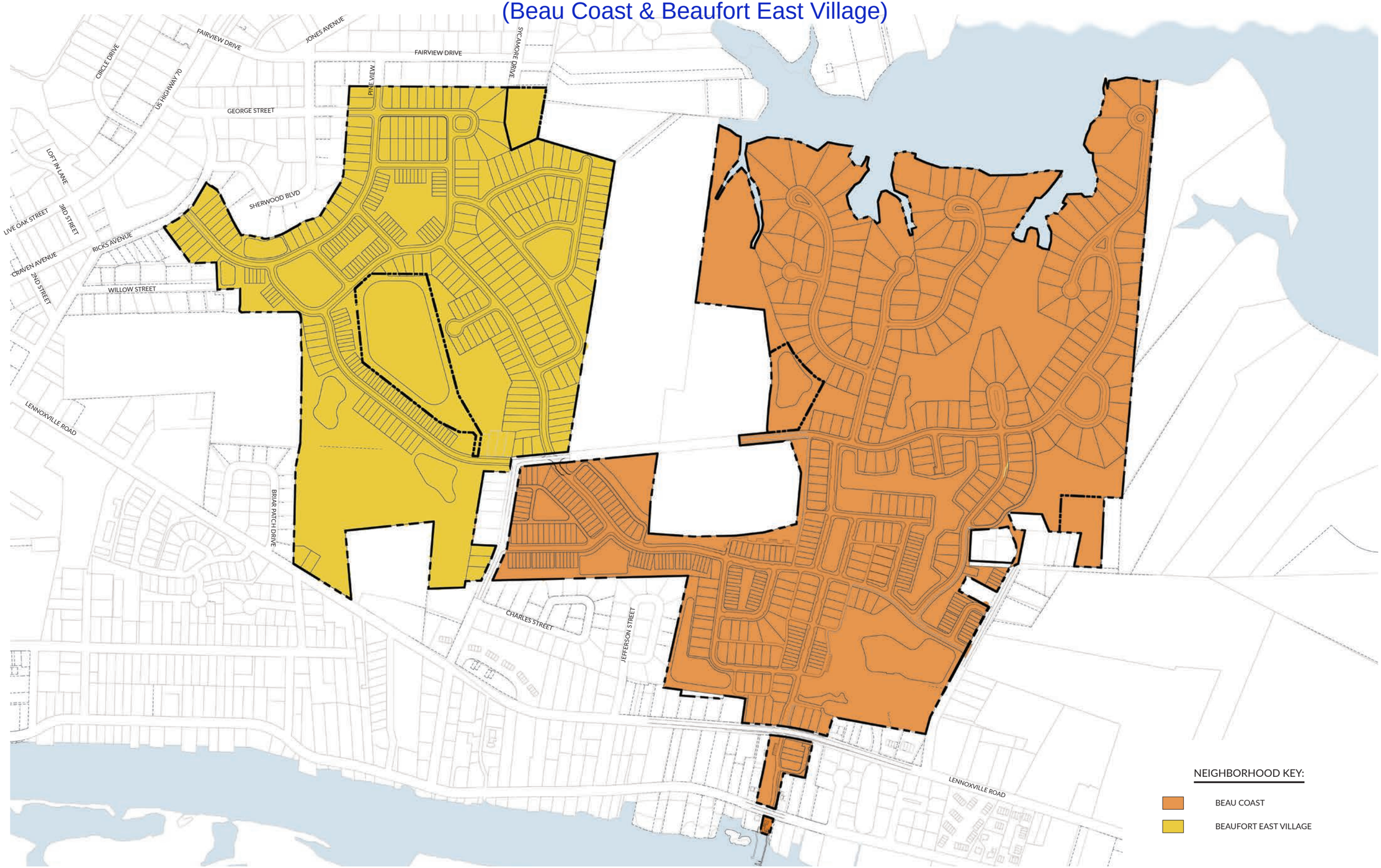
COMMON AREA NOT COUNTED AS OPEN SPACE (4.76 AC)

TOTAL ACREAGE INCLUDED LANDFILL AREA: **282.99 AC**

PARK FROM LANDFILL ACQUISITION (10.01 AC - 38%)

LOTS

Planned Unit Development Neighborhood Map
(Beau Coast & Beaufort East Village)



Chapter 2. Beau Coast Conceptual Product Types

Townhomes: 20’ Wide Front Load 1 Car Garage Townhome Collection

Townhomes: 22’ Wide Rear Load 2 Car Garage Townhome Collection

Single Family: 24’ Wide Detached Garage Cottage Collection

Beau Coast Lot Type A

i. BC 24 A (1734 sq ft)

ii. BC 24 B (1763 sq ft)

iii. BC 24 CTTT (1830 sq ft)

iv. BC 24 D (2052 sq ft)

v. BC 24 E (2301 sq ft)

vi. BC 24 F (2416 sq ft)

Single Family: 39' Wide Rear Load Garage Collection

Beau Coast Lot Type B

i. BC 39 A (2066 sq ft)

ii. BC 39 B (2274 sq ft)

iii. BC 39 C (2306 sq ft)

iv. BC 39 D (2630 sq ft)

v. BC 39 E (2964 sq ft)

vi. BC 39 F (3180 sq ft)

Single Family: 24' Wide Rear Load Garage Collection

Beau Coast Lot Type B2

Planter's Way

Streamline Developers

The Seaview

Streamline Developers

The Pollock

Streamline Developers

Chapter 3. Beaufort East Village Conceptual Types

Townhome: 22’ Wide One Car Garage Townhome Collection

Single Family: 26’ 2 Car Garage Collection

Beaufort East Village Lot Type D

i. BEV 26 A (1927 sq ft)

iii. BEV 26 C (1896 sq ft)

ii. BEV 26 BT (1932 sq ft)

iv. BEV 26 D (1832 sq ft)

Single Family: 40' Wide 2 Car Garage Collection

Beaufort East Village Lot Type E

i. BEV 40 A (2228 sq ft)

ii. BEV 40 B (2335 sq ft)

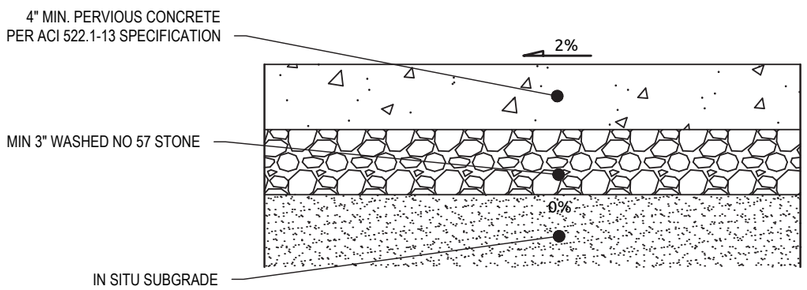
iii. BEV 40 C (2529 sq ft)

iv. BEV 40 D (2791 sq ft)

v. BEV 40 E (2925 sq ft)

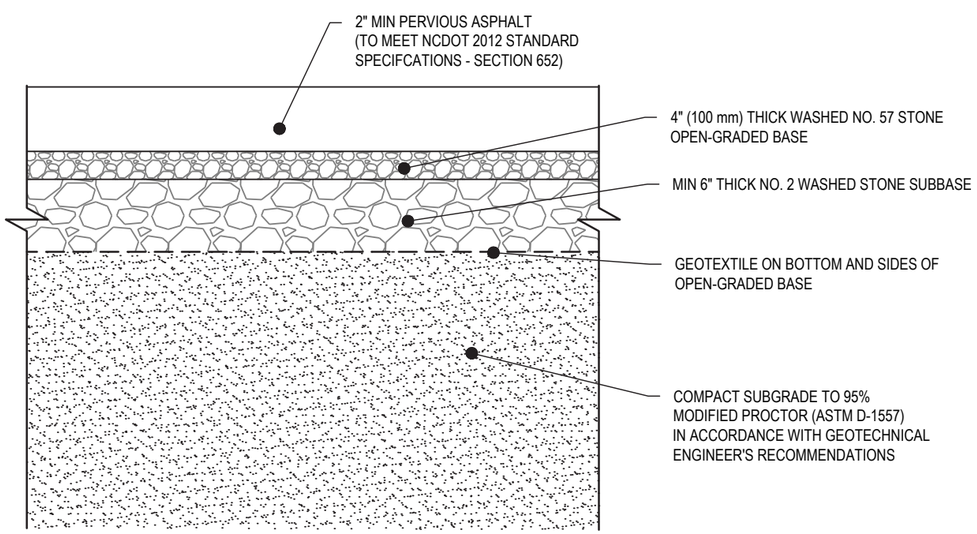
Permeable Paving Options

The developer of Beaufort East Village PUD may elect to utilize these permeable paving options for the areas cited below. These permeable pavement options are not required to be used. Minor variations to these design specifications can be approved by Town engineering staff without a PUD amendment.



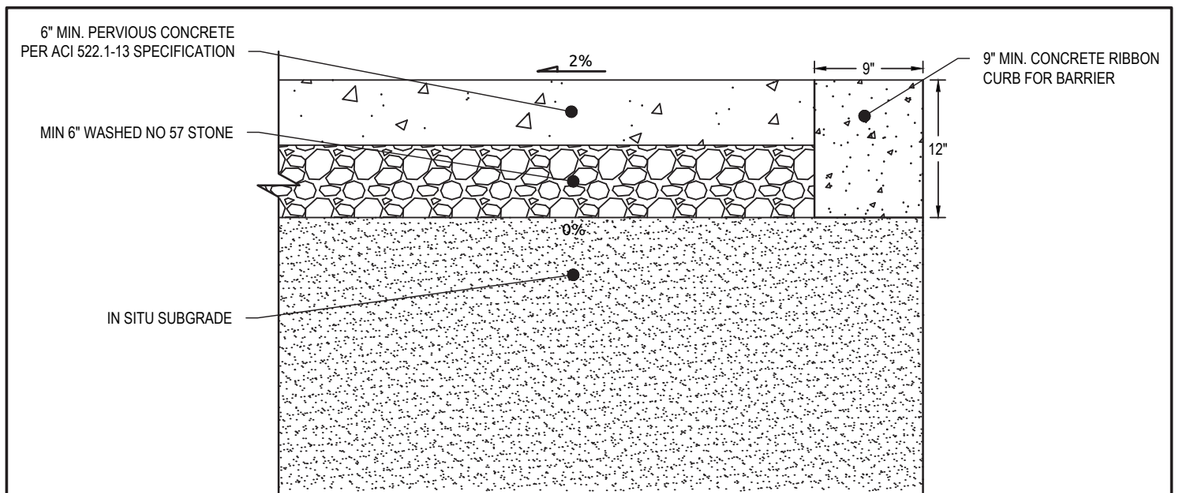
PERVIOUS CONCRETE SIDEWALK DETAIL

NTS



PERVIOUS ASPHALT IN ALLEY AREAS DETAIL

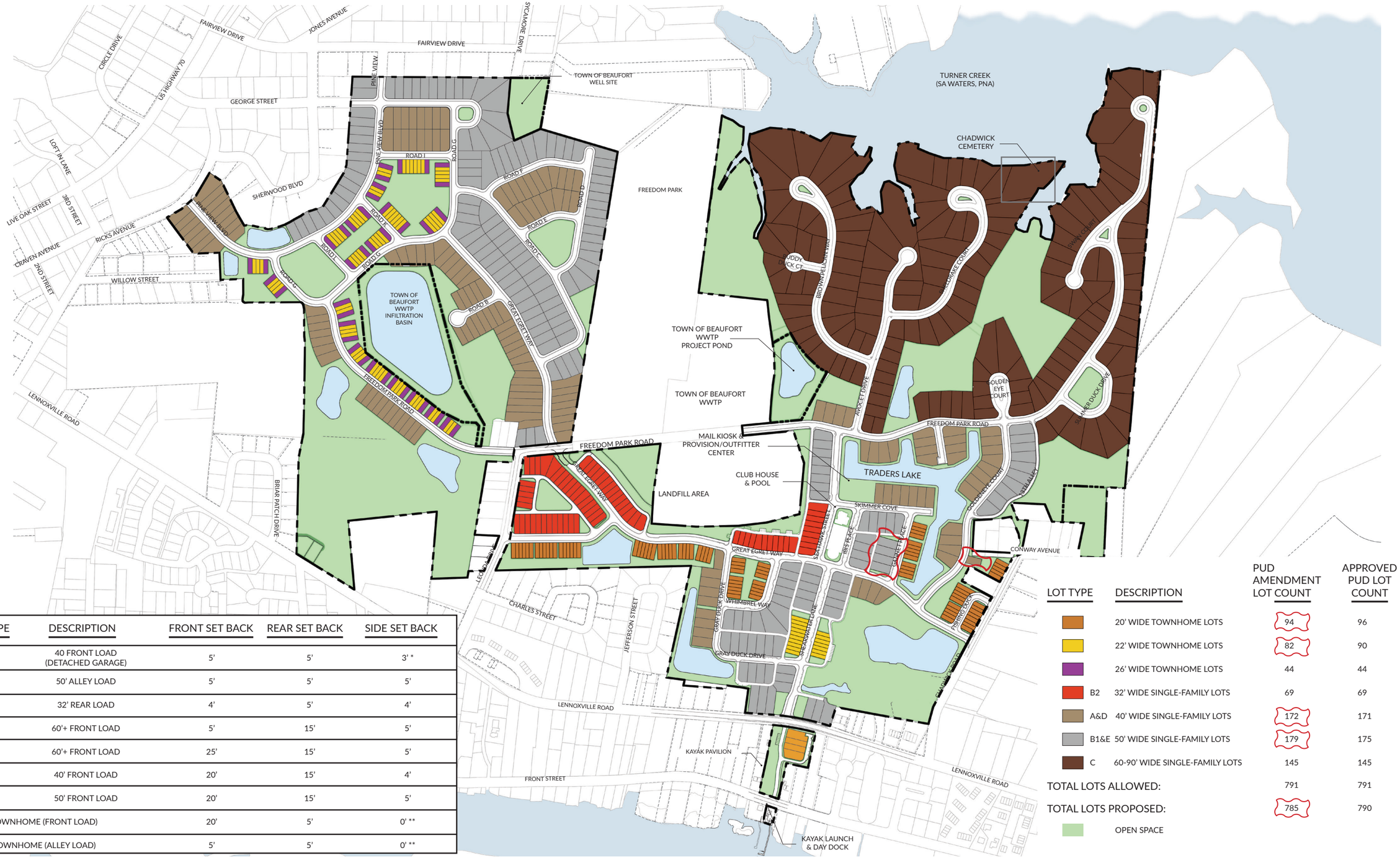
NTS



PERVIOUS CONCRETE IN ALLEYS & PRIVATE PARKING AREAS DETAIL

NTS

Key Plan for Lot Types

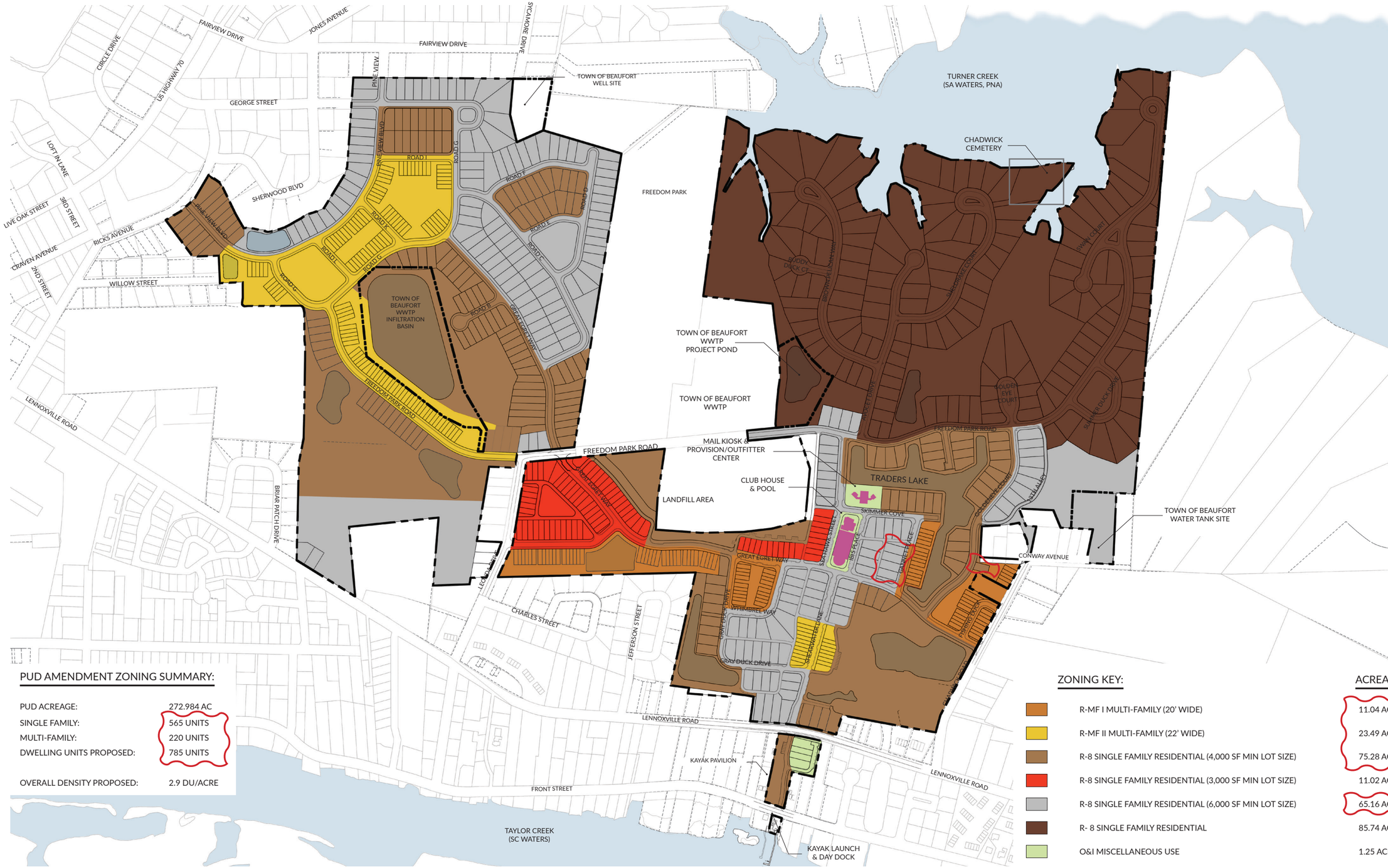


LOT TYPE	DESCRIPTION	FRONT SET BACK	REAR SET BACK	SIDE SET BACK
A	40 FRONT LOAD (DETACHED GARAGE)	5'	5'	3' *
B	50' ALLEY LOAD	5'	5'	5'
B2	32' REAR LOAD	4'	5'	4'
C(1)	60'+ FRONT LOAD	5'	15'	5'
C(2)	60'+ FRONT LOAD	25'	15'	5'
D	40' FRONT LOAD	20'	15'	4'
E	50' FRONT LOAD	20'	15'	5'
TOWNHOME (FRONT LOAD)		20'	5'	0' **
TOWNHOME (ALLEY LOAD)		5'	5'	0' **

* ONE-STORY DETACHED GARAGES W/O HABITABLE SPACE MAY HAVE 0' SIDE SETBACK
** TOWNHOME BUILDING TO BUILDING SEPARATION IS A MINIMUM OF 10'.

LOT TYPE	DESCRIPTION	PUD AMENDMENT LOT COUNT	APPROVED PUD LOT COUNT
	20' WIDE TOWNHOME LOTS	94	96
	22' WIDE TOWNHOME LOTS	82	90
	26' WIDE TOWNHOME LOTS	44	44
B2	32' WIDE SINGLE-FAMILY LOTS	69	69
A&D	40' WIDE SINGLE-FAMILY LOTS	172	171
B1&E	50' WIDE SINGLE-FAMILY LOTS	179	175
C	60-90' WIDE SINGLE-FAMILY LOTS	145	145
TOTAL LOTS ALLOWED:		791	791
TOTAL LOTS PROPOSED:		785	790
	OPEN SPACE		

PUD Master Zoning Plan



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R- 8 SINGLE FAMILY RESIDENTIAL	85.74 ACRES
O&I MISCELLANEOUS USE	1.25 ACRES

Town of Beaufort, NC
701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 15, 2021 – Virtual Meeting via Zoom

AGENDA CATEGORY: New Business

SUBJECT: Final Plat - Beau Coast Phase V

BRIEF SUMMARY:

The applicant wishes to subdivide a 15.31 acre tract into 86 lots (49 Single-Family Residential Lots & 37 Townhome Lots). In addition to Planning Staff the Town Engineer and applicants Engineer will also be available to answer questions regarding the proposed infrastructure.

REQUESTED ACTION:

Recommendation to Board of Commissioners

EXPECTED LENGTH OF PRESENTATION:

20 Minutes

SUBMITTED BY:

Kyle Garner, AICP

Planning & Inspections Director

BUDGET AMENDMENT REQUIRED:

N/A

STAFF REPORT

To: Planning Board Members

From: Kyle Garner, AICP, Town Planner

Date: February 25, 2021

Case No. 21-07 Beau Coast Phase V – Final Plat

THE QUESTION: Subdivide a 15.31acre tract into 86 lots (49 Single-Family Residential Lots & 37 Townhome Lots).

BACKGROUND: The preliminary plat for this area was approved in June 2020 for installation of infrastructure improvements.

Location:	Beau Coast Subdivision
Owners:	Blue Treasure, LLC
Requested Action:	Subdivide a 15.31 Acre Tract into 86 Lots
Existing Zoning	PUD
Size:	15.31 acres
Amount of Open Space:	6.347Acres
Existing Land Use:	Undeveloped

SPECIAL INFORMATION: As part of the Final Plat process the infrastructure can be either installed or bonded through a financial guarantee process to ensure completion of the project. The applicant has chosen to request to bond the infrastructure improvement and has submitted cost estimates for the complete cost of improvements totaling $762,125 (See estimated cost of improvement sheet from engineer).

Public Utilities:

Water:	Town Of Beaufort
Sanitary Sewer:	Town Of Beaufort

OPTIONS:

1. Recommend approve the Final Plat for Beau Coast Phase V.
2. Deny the request

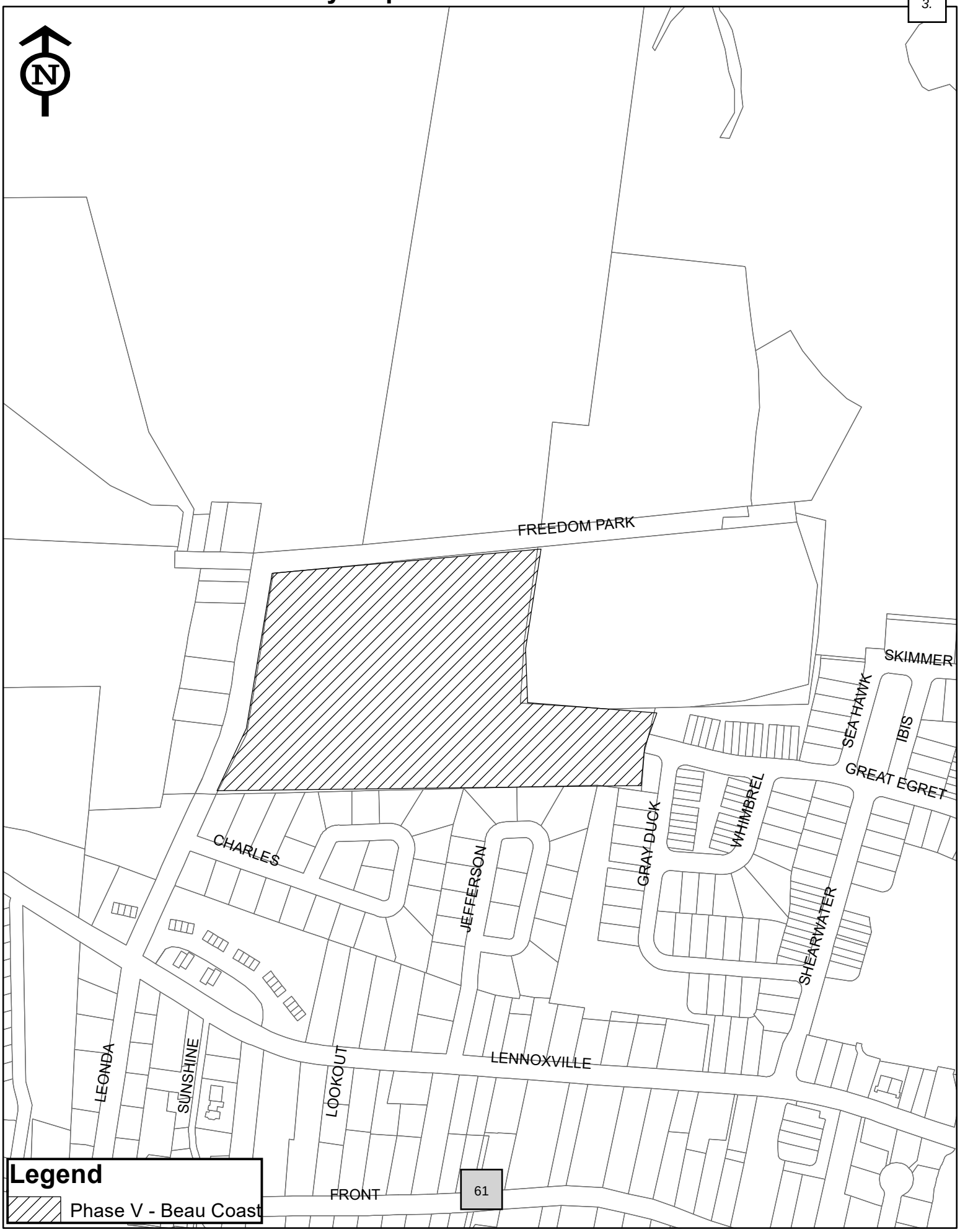
Attachments:

- Attachment A - Vicinity Map
- Attachment B - Final Plat for Beau Coast Phase V
- Attachment C - Bond Letter
- Attachment D – Bond Estimates
- Attachment E – Pervious Surface Details

Case No.: 18-11
Location: Chadwick & Lennoxville Road

Page: 1

Case 21-07 Vicinity Map - Final Plat - Phase V - Beau Coast



BEAU COAST SUBDIVISION PHASE 5

SURVEY CERTIFICATE

I, RUDOLF A VANDERVELDE JR, PLS, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN DB 1256 PG 198; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK, PAGE (AS SHOWN HERON); THAT THE RATIO OF PRECISION AS CALCULATED IS 1: 20,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS XX DAY OF XXXXXX A.D., 2021.

I ALSO CERTIFY TO THIS MAP TO BE ONE OF THE FOLLOWING AS CHECKED BELOW;

A. CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

NORTH CAROLINA PROFESSIONAL SEAL L-5146 LAND SURVEYOR RUDOLF A. VANDERVELDE JR.
"PRELIMINARY PLAT"
NOT FOR CONVEYANCE,
RECORDATION, OR SALES

RUDOLF A. VANDERVELDE JR (PROFESSIONAL LAND SURVEYOR)
LICENSE # 5146

GENERAL NOTES

1. AREAS COMPUTED BY COORDINATE METHOD.
2. BASIS OF BEARING NAD 83(1986).
3. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.
4. SEE SYMBOL LEGEND FOR PROPERTY CORNER DESIGNATIONS.
5. NO PORTION OF THE SUBJECT PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD ZONES ACCORDING TO NORTH CAROLINA FLOOD INSURANCE RATE MAP # 3720730600J, PANEL 7306, EFFECTIVE DATE: 7-16-2003 AND MAP # 3720730500J, PANEL 7305, EFFECTIVE DATE: 7-16-2003
6. ALLEYS ARE PRIVATE BUT PUBLICLY AVAILABLE FOR POLICE, FIRE, TRASH, ETC. WITH NO LIABILITY TO THE TOWN OF BEAUFORT.
7. WETLANDS SHOWN HEREON WERE DELINEATED BY LAND MANAGEMENT GROUP. SEE US ARMY CORPS OF ENGINEERS(WILMINGTON DISTRICT) NOTIFICATION OF JURISDICTIONAL DETERMINATION
   ACTION ID: 2007-02679-016
   ACTION ID: 2007-03212-016
   ACTION ID: 2007-02697-016
   ACTION ID: 2007-02705-016
8. THE TOWN OF BEAUFORT SHOULD BE CONTACTED TO VERIFY BUILDING SETBACKS AND OTHER DEVELOPMENTAL RESTRICTIONS.

BEAU COAST SUBDIVISION PHASE 5 SITE DATA

OWNER: BLUE TREASURE LLC
MAILING ADDRESS: 105 WESTON ESTATES WAY, CARY NC 27513
DEED REFERENCE: DB 1256 PG 198
PLAT REFERENCE: PB 33 PG 328, PB 32 PG 458
CARTERET COUNTY PIN: 731605005458000
TOWN OF BEAUFORT ZONING: PUD

TOTAL RESIDENTIAL LOTS: 86
SINGLE FAMILY LOTS (32' WIDE): 49
TOWNHOME UNITS: 37

TOTAL LOT ACREAGE: 5.724 ACRES
AVERAGE LOT SIZE: 2,899 SQ FT
DENSITY: 15.02 UNITS/ACRE
OPEN SPACE ACREAGE: 6.347 ACRES
PRIVATE RIGHT OF WAY: 0.878
DEDICATED PUBLIC RIGHT OF WAY: 2.361 ACRES

TOTAL PHASE 5 ACREAGE: 15.310 ACRES

SETBACKS

32' WIDE LOTS
4' FRONT
4' SIDE
5' REAR

TOWNHOME LOTS
20' FRONT
0' SIDE
5' REAR

(SITE MAP - FOR VISUAL PURPOSES ONLY)

CERTIFICATE OF OWNERSHIP AND DEDICATION

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, WHICH IS LOCATED IN THE SUBDIVISION JURISDICTION OF THE TOWN OF BEAUFORT AND THAT I HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY FREE CONSENT, ESTABLISHED MINIMUM BUILDING SETBACK LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED. FURTHERMORE, I HEREBY DEDICATE ALL SANITARY SEWER, STORM SEWER AND WATER LINES TO THE TOWN OF BEAUFORT.

BLUE TREASURE LLC

BY: _____

NAME: _____ DATE

TITLE: MANAGER

CERTIFICATE OF APPROVAL BY THE PLANNING BOARD

THE BEAUFORT PLANNING BOARD HEREBY APPROVES THE FINAL PLAT FOR THE _____SUBDIVISION.

_____
CHAIRMAN, BEAUFORT PLANNING BOARD DATE

CERTIFICATE OF APPROVAL OF THE DESIGN AND INSTALLATION OF STREETS, UTILITIES, AND OTHER REQUIRED IMPROVEMENTS

I HEREBY CERTIFY THAT ALL STREETS, UTILITIES AND OTHER REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO THE TOWN OF BEAUFORT SPECIFICATIONS AND STANDARDS IN THE _____ SUBDIVISION OR THAT GUARANTEES OF THE INSTALLATION OF THE REQUIRED IMPROVEMENTS IN AN AMOUNT AND MANNER SATISFACTORY TO THE TOWN OF BEAUFORT HAVE BEEN RECEIVED AND THAT FILLING FEE FOR THIS PLAT, IN THE AMOUNT OF $_____ HAS BEEN PAID.

_____
TOWN MANAGEER DATE

REGISTER OF DEEDS

FILED FOR REGISTRATION AT _____, O'CLOCK ON THE _____ DAY OF _____, 2021

RECORDED IN MAP BOOK _____ PAGE _____

_____
REGISTER OF DEEDS CARTERET COUNTY DATE

CERTIFICATE OF APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR BEAUFORT, NORTH CAROLINA, AND THAT THIS PLAT HAS BEEN APPROVED BY THE BOARD OF COMMISSIONERS FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS OF CARTERET COUNTY.

_____
DATE TOWN CLERK, BEAUFORT

REVIEW OFFICER CERTIFICATE

I _____, REVIEW OFFICER OF CARTERET COUNTY, CERTIFY THAT THIS MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

_____
REVIEW OFFICER

_____
DATE

NORTH CAROLINA
CARTERET COUNTY

REVISIONS:	DATE: 2-18-21
	SURVEYED BY: RJ
	DRAWN BY: RAV
	CHECK & CLOSURE BY: RAV
	CAD FILE: BC PHASE 5 SD PLAT.DWG
	PROJECT NO: 02080976.00

SUBDIVISION MAP OF
BEAU COAST PHASE 5
PROPERTY OF
BLUE TREASURE LLC

TOWNSHIP: BEAUFORT	COUNTY: CARTERET	STATE: NORTH CAROLINA
TOWN OF BEAUFORT ZONING: PUD	PIN: 731605005458000	SHEET 1 OF 3

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 |
www.withersravenel.com

K:\DB\08-0970\085976-Beaufort East Village Ph 1\Survey\AD_Drawings\BC Phase 5 Subdivision Plat.dwg- Thursday, February 18, 2021 2:17:22 PM - VANDERVELDE, RUDY

SEE SHEET 1 OF 3 FOR SITE MAP, NOTES AND CERTIFICATIONS
SEE SHEET 3 OF 3 FOR EASEMENT CALLS

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4' FRONT
4' SIDE
5' REAR

TOWNHOME LOTS
20' FRONT
0' SIDE
5' REAR

LOT AREA TABLES

LOT #	SQUARE FEET	ACRES	LOT #	SQUARE FEET	ACRES
368	2,286	0.052	414	3,716	0.085
369	1,829	0.042	415	3,716	0.085
370	1,829	0.042	416	3,710	0.085
371	2,280	0.052	417	3,122	0.072
372	2,290	0.053	418	3,046	0.070
373	1,853	0.043	419	3,040	0.070
374	1,853	0.043	420	3,040	0.070
375	2,292	0.053	421	3,040	0.070
376	2,275	0.052	422	3,495	0.080
377	1,820	0.042	423	3,586	0.082
378	1,820	0.042	424	3,681	0.085
379	1,820	0.042	425	6,973	0.160
380	2,276	0.052	426	5,859	0.135
381	2,380	0.055	427	3,409	0.078
382	1,848	0.042	428	3,408	0.078
383	1,824	0.042	429	3,408	0.078
384	1,824	0.042	430	3,408	0.078
385	1,848	0.042	431	3,408	0.078
386	2,380	0.055	432	3,589	0.082
387	2,275	0.052	433	4,022	0.092
388	1,820	0.042	434	3,378	0.078
389	1,820	0.042	435	3,376	0.078
390	1,820	0.042	436	3,376	0.078
391	1,820	0.042	437	3,376	0.078
392	2,275	0.052	438	3,323	0.076
393	2,275	0.052	439	4,499	0.103
394	1,820	0.042	440	3,858	0.089
395	1,820	0.042	441	3,858	0.089
396	1,820	0.042	442	3,146	0.072
397	1,820	0.042	443	3,056	0.070
398	2,275	0.052	444	3,056	0.070
399	2,275	0.052	445	3,056	0.070
400	1,820	0.042	446	3,056	0.070
401	1,820	0.042	447	3,056	0.070
402	1,820	0.042	448	3,259	0.075
403	1,820	0.042	449	3,331	0.076
404	2,275	0.052	450	3,230	0.074
405	3,689	0.085	451	3,056	0.070
406	3,716	0.085	452	3,056	0.070
407	3,716	0.085	453	3,701	0.085
408	3,716	0.085	OS31	978	0.022
409	3,716	0.085	OS32	4,198	0.096
410	3,716	0.085	OS33	726	0.017
411	3,716	0.085	OS35	1,568	0.036
412	3,716	0.085	OS36	1,493	0.034
413	3,716	0.085	OS37	1,305	0.030

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	25.00'	28.49'	N 56°58'34" E	26.97'
C2	123.50'	87.69'	N 69°16'49" E	85.86'
C3	25.00'	38.06'	S 87°26'33" E	34.49'
C4	335.50'	134.54'	S 55°18'44" E	133.64'
C5	335.50'	25.32'	S 68°57'45" E	25.31'
C6	335.50'	20.08'	S 72°50'21" E	20.08'
C7	335.50'	20.01'	S 76°15'47" E	20.01'
C8	335.50'	20.01'	S 79°40'50" E	20.01'
C9	335.50'	20.08'	S 83°06'15" E	20.08'
C10	335.50'	25.32'	S 86°58'52" E	25.31'
C11	335.50'	1.81'	S 89°17'52" E	1.81'
C12	335.50'	11.19'	N 89°35'32" E	11.19'
C13	474.50'	8.13'	N 89°07'38" E	8.13'
C14	474.50'	20.01'	S 89°10'27" E	20.00'
C15	474.50'	20.01'	S 86°45'31" E	20.00'
C16	474.50'	25.06'	S 84°02'15" E	25.06'
C17	474.50'	29.25'	S 80°45'31" E	29.24'
C18	474.50'	25.01'	S 77°28'59" E	25.01'
C19	531.50'	142.77'	N 83°40'05" W	142.34'
C20	278.50'	55.09'	N 85°41'49" W	55.00'
C21	20.00'	33.74'	N 31°41'54" W	29.88'
C22	40.00'	56.90'	N 24°07'01" W	52.22'
C23	163.00'	77.73'	N 51°12'24" W	76.99'
C24	647.00'	92.43'	N 41°38'18" W	92.35'
C25	40.00'	62.83'	S 89°16'08" W	56.57'
C26	20.00'	31.42'	S 89°16'08" W	28.28'
C27	368.50'	4.99'	N 45°20'37" W	4.99'
C28	25.00'	54.98'	N 18°03'05" E	44.55'
C29	25.00'	26.15'	S 65°28'02" E	24.97'
C30	431.50'	77.01'	S 39°05'20" E	76.90'
C31	431.50'	11.52'	S 44°57'59" E	11.52'
C32	468.50'	14.98'	S 44°48'55" E	14.98'
C33	468.50'	43.77'	S 41°13'22" E	43.76'
C34	468.50'	8.18'	S 38°02'45" E	8.18'
C35	25.00'	20.58'	S 13°58'03" E	20.00'
C36	25.00'	17.16'	S 29°16'29" W	16.83'
C37	20.00'	22.63'	S 81°20'51" W	21.44'
C38	20.00'	10.02'	N 51°53'41" W	9.91'
C39	421.00'	19.36'	N 38°51'47" W	19.36'
C40	421.00'	32.01'	N 42°21'32" W	32.00'
C41	421.00'	8.77'	N 45°08'03" W	8.77'
C42	100.00'	5.48'	N 47°18'09" W	5.48'
C43	100.00'	29.47'	N 57°18'54" W	29.36'
C44	100.00'	29.46'	N 74°11'50" W	29.36'
C45	100.00'	13.54'	N 86°30'58" W	13.53'
C46	20.00'	34.86'	S 40°27'50" E	30.61'
C47	209.00'	18.95'	S 06°52'09" W	18.94'
C48	209.00'	16.96'	S 01°56'49" W	16.96'
C49	20.00'	12.81'	S 17°58'07" W	12.59'
C50	20.00'	18.61'	S 62°58'07" W	17.94'
C51	20.00'	15.99'	S 67°28'22" E	15.57'
C52	20.00'	2.45'	S 41°03'23" E	2.45'
C53	20.00'	39.91'	S 19°36'57" W	33.61'
C54	70.50'	15.80'	S 83°11'59" W	15.77'
C55	25.00'	9.81'	N 79°08'27" W	9.74'
C56	25.00'	33.76'	N 29°13'05" W	31.25'
C57	20.00'	31.42'	N 45°22'41" W	28.28'
C58	189.00'	32.47'	N 04°32'38" E	32.43'
C59	20.00'	36.62'	N 61°55'18" E	31.72'
C60	80.00'	27.77'	S 55°40'37" E	27.63'
C61	401.00'	12.83'	S 44°48'53" E	12.83'
C62	20.00'	46.61'	S 22°51'42" W	36.75'
C63	20.00'	31.42'	N 89°16'08" E	28.28'
C64	627.00'	23.95'	S 44°38'13" E	23.94'
C65	627.00'	37.76'	S 41°49'05" E	37.75'
C66	627.00'	27.87'	S 38°49'09" E	27.87'
C67	183.00'	3.62'	S 38°06'44" E	3.62'
C68	183.00'	32.04'	S 43°41'40" E	32.00'
C69	183.00'	32.04'	S 53°43'35" E	32.00'
C70	183.00'	19.56'	S 61°48'18" E	19.56'
C71	20.00'	28.45'	S 24°07'01" E	26.11'
C72	20.00'	33.74'	S 64°57'57" W	29.88'
C73	278.50'	38.69'	N 62°43'19" W	38.66'
C74	278.50'	48.76'	N 53°43'35" W	48.70'
C75	278.50'	48.76'	N 43°41'40" W	48.70'
C76	278.50'	5.51'	N 38°06'44" W	5.51'
C77	531.50'	23.63'	N 38°49'09" W	23.63'
C78	531.50'	32.00'	N 41°49'05" W	32.00'
C79	531.50'	20.30'	N 44°38'13" W	20.30'
C80	20.00'	31.42'	N 00°43'52" W	28.28'
C81	70.50'	34.25'	S 62°51'29" W	33.92'
C82	278.50'	64.79'	N 73°21'58" W	64.64'

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 45°43'52" W	12.65'
L2	S 00°22'41" E	2.78'
L3	N 00°22'41" W	2.78'
L4	S 48°56'19" W	36.17'
L5	S 45°43'52" E	60.00'

LEGEND

AC - ACRES
AXF - AXLE FOUND
CMF - CONCRETE MONUMENT FOUND
EOP - EDGE OF PAVEMENT
IPF - IRON PIPE FOUND
ISF - IRON STAKE FOUND
OS - OPEN SPACE
PKS - PK NAIL SET
PP - UTILITY POLE
RMF - RIGHT OF WAY MONUMENT FOUND
R/W - RIGHT OF WAY
RBF - REBAR FOUND
SQ FT - SQUARE FEET

o - 0.5" IRON PIPE SET (UNLESS OTHERWISE NOTED)

NON SURVEYED LINES
BOUNDARY
BUFFER
EASEMENT
EXISTING R/W

REVISIONS:	DATE: 2-18-21
	SCALE: 1"=50'
	SURVEYED BY: RJ
	DRAWN BY: RAV
	CHECK & CLOSURE BY: RAV
	CAD FILE: BC PHASE 5 SD PLAT.DWG
	PROJECT NO: 02080976.00

SUBDIVISION MAP OF
BEAU COAST PHASE 5
PROPERTY OF
BLUE TREASURE LLC

TOWNSHIP: BEAUFORT	COUNTY: CARTERET	STATE: NORTH CAROLINA
TOWN OF BEAUFORT ZONING: PUD	PIN: 731605005458000	SHEET 2 OF 3

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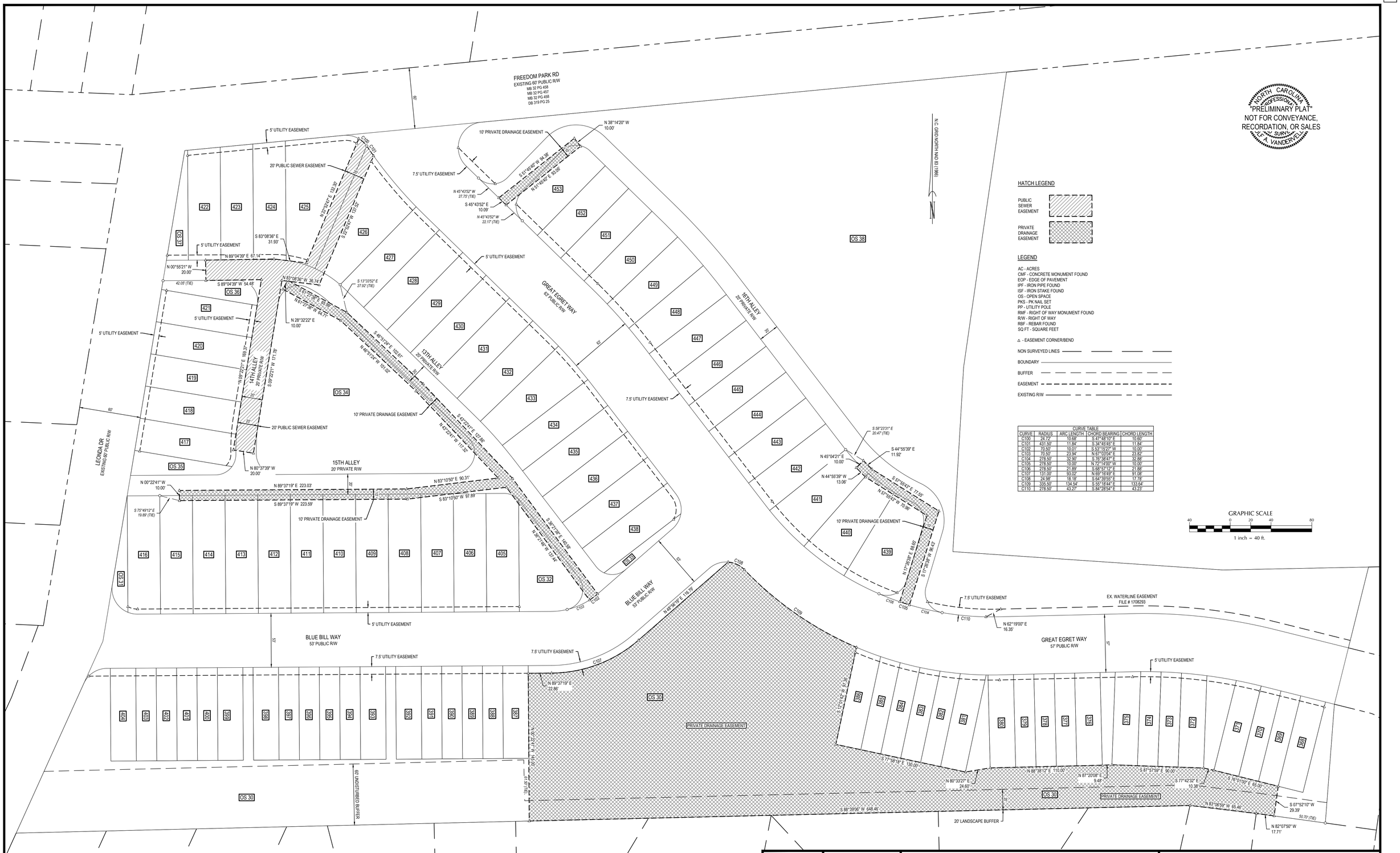
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 |
www.withersravenel.com

K:\08\08-0970\080976-Beaufort East Village Ph 1\SurveyCAD_Drawings\BC Phase 5 Subdivision Plat.dwg- Thursday, February 18, 2021 2:17:54 PM - VANDERVELDE, RUDY



NORTH CAROLINA PROFESSIONAL SEAL SURVEYOR R. A. VANDERVELDE

"PRELIMINARY PLAT"
NOT FOR CONVEYANCE, RECORDATION, OR SALES

HATCH LEGEND

PUBLIC SEWER EASEMENT

PRIVATE DRAINAGE EASEMENT

LEGEND

AC - ACRES
CMF - CONCRETE MONUMENT FOUND
EOP - EDGE OF PAVEMENT
IPF - IRON PIPE FOUND
ISF - IRON STAKE FOUND
OS - OPEN SPACE
PKS - PK NAIL SET
PP - UTILITY POLE
RMF - RIGHT OF WAY MONUMENT FOUND
R/W - RIGHT OF WAY
RBF - REBAR FOUND
SQ FT - SQUARE FEET

△ - EASEMENT CORNER/BEND

NON SURVEYED LINES
BOUNDARY
BUFFER
EASEMENT
EXISTING R/W

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C100	24.72'	10.68'	S 47°48'10" E	10.60'
C101	431.50'	11.84'	S 34°45'45" E	11.84'
C102	70.50'	10.01'	S 53°15'27" W	10.00'
C103	70.50'	23.94'	N 67°03'04" E	23.82'
C104	278.50'	32.90'	S 76°38'47" E	32.88'
C105	278.50'	10.00'	N 72°14'00" W	10.00'
C106	278.50'	21.89'	S 68°57'12" E	21.88'
C107	131.00'	93.02'	N 69°16'49" E	91.08'
C108	24.98'	18.18'	S 64°39'55" E	17.78'
C109	335.50'	134.54'	S 55°18'44" E	133.64'
C110	278.50'	43.27'	S 84°28'54" E	43.23'

GRAPHIC SCALE

40 0 20 40 80

1 inch = 40 ft.

REVISIONS:	DATE: 2-18-21
	SCALE: 1"=40'
	SURVEYED BY: RJ
	DRAWN BY: RAV
	CHECK & CLOSURE BY: RAV
	CAD FILE: BC PHASE 5 SD PLAT.DWG
	PROJECT NO: 02080976.00

SUBDIVISION MAP OF

BEAU COAST PHASE 5

PROPERTY OF

BLUE TREASURE LLC

TOWNSHIP: BEAUFORT	COUNTY: CARTERET	STATE: NORTH CAROLINA
TOWN OF BEAUFORT ZONING: PUD	PIN: 731605005458000	SHEET 3 OF 3

WithersRavenel
Engineers | Planners | Surveyors
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K:\DR\08-0970\08097б-Beaufort East Village Ph 1\SurveyCAD_Drawings\BC Phase 5 Subdivision Plat.dwg- Thursday, February 18, 2021 2:25:15 PM - VANDERVELDE, RUDY

WithersRavenel
Our People. Your Success.

February 19, 2021

Mr. Kyle Garner, AICP
Planning & Inspections Director
Town of Beaufort
701 Front Street
Beaufort, NC 28516

RE: Beau Coast Phase 5 – Completion Bond Estimate
WR Project No. 02080976.50

Dear Mr. Garner:

On behalf of Blue Treasure, LLC, we are preparing this letter stating that as of February 12, 2021, the following public improvements need to be bonded to allow for plat recordation in Beau Coast Phase 5. A completion bond/letter of credit will be provided to the Town of Beaufort for the remaining improvements in the amount of 100% of the estimated construction costs. Our estimate of the remaining improvements is attached.

In total our estimate comes to a total of $762,125 for the remaining improvements.

Please advise if this amount is satisfactory to the Town and the Owner will post the required financial guarantee. Please let us know if you need any additional information regarding this matter and thanks for your continued assistance on this project.

Sincerely,
WithersRavenel

Joe Boyd, PE
Project Manager

CC: Greg Meshaw, PE – Town of Beaufort
Karl Blackley – Blue Treasure, LLC
Don Mizelle – WithersRavenel, Inc.

219 Station Road, Suite 101 | Wilmington, NC 28405
t: 910.256.9277 | f: 910.256.2584 | www.withersravenel.com | License No. C-0832
Asheville | Cary | Greensboro | Pittsboro | Raleigh | Wilmington

BOND ESTIMATE

Town of Beaufort
701 Front Street
Beaufort, NC 28516
(252) 728-2141
www.beafortnc.org

PROJECT NAME:	Beau Coast Phase 5
OWNER:	Blue Treasure, LLC
ENGINEER:	Joe Boyd, PE
ENGINEER PHONE NO.:	910-256-9277
ENGINEER EMAIL:	jboyd@withersravenel.com
DATE:	2/19/2021

UNLESS OTHERWISE SPECIFIED ALL BONDS ARE FOR THE BODY OF THE PLAT

SIGNATURE AND SEAL OF SUBMITTING ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD

I, Joseph S. Boyd a Registered Licensed Professional, do hereby vertify that I have personally supervised the measurement thereof and that the quantities expressed herein represent an accurate measurement of the work to be completed on this project. This bond estimate covers all the infrastructure improvements on the project referenced above.

Please sign below

STREET PAVEMENT	LINEAR FEET:	WIDTH:	UNIT COST (Dollars/SY)	TOTAL:
Final Asphalt Surface Course	4500	20	$ 10.50	$ 105,000.00
Initial Asphalt Suface Course	4500	20	$ 10.30	$ 103,000.00
Asphalt Intermediate Course				$ -
Asphalt Base Course				$ -
Aggregate Base Course	4500	20	$ 17.00	$ 170,000.00
Fine Grading	4500	20	$ 0.90	$ 9,000.00
				$ -
			Subtotal	**$ 387,000.00**

STREET INCIDENTALS	QUANTITY:	UNIT:	UNIT COST:	TOTAL:
Street Signs		Each		$ -
Street Trees (40' O.C.)		Each		$ -
Street Lights		Each		$ -
Pavement Striping		LF		$ -
				$ -
				$ -
			Subtotal	**$ -**

CURBING & SIDEWALK:	QUANTITY:	UNIT:	UNIT COST:	TOTAL:
2'-6" Standard Curb		LF		$ -
2'-6" Rolled curb	6750	LF	$ 15.00	$ 101,250.00
4' Wide Sidewalk		LF		$ -
5' Wide Sidewalk	4600	LF	$ 21.00	$ 96,600.00
Driveway Aprons		Each		$ -
Handicap Ramp	17	Each	$ 750.00	$ 12,750.00
Saw Cuts to correct Curb Cracks	20	Each	$ 75.00	$ 1,500.00
				$ -
			Subtotal	**$ 212,100.00**

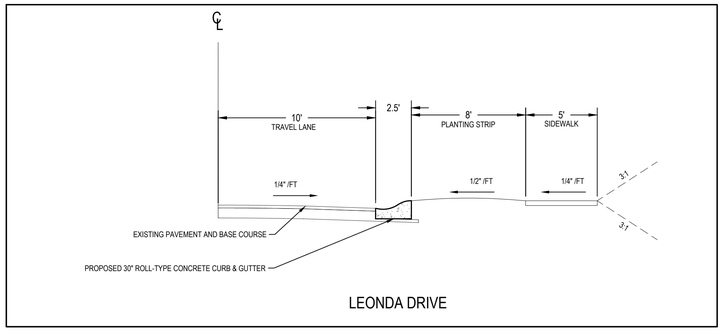
SANITARY SEWER	QUANTITY:	UNIT:	UNIT COST:	TOTAL:
8" PVC Gravity Sewer		LF		$ -
8" DIP Gravity Sewer		LF		$ -
10" PVC Gravity Sewer		LF		$ -
10" DIP Gravity Sewer		LF		$ -
12" PVC Gravity Sewer		LF		$ -
12" DIP Gravity Sewer		LF		$ -
15" PVC Gravity Sewer		LF		$ -
15" DIP Gravity Sewer		LF		$ -
2" PVC Force Main		LF		$ -
4" PVC Force Main		LF		$ -
4" DIP Force Main		LF		$ -
6" PVC Force Main		LF		$ -
6" DIP Force Main		LF		$ -
8" PVC Force Main		LF		$ -
8" DIP Force Main		LF		$ -
4'0" Dia. Manhole		LF		$ -
5'0" Dia Manhole		LF		$ -
Service Laterals, Main to Cleanout		Each		$ -
Pump Station		Lump Sum		$ -
				$ -
				$ -
				$ -
			Subtotal	**$ -**

WATER	QUANTITY:	UNIT:	UNIT COST:	TOTAL:
2" PVC Water Main		LF		$ -
4" PVC Water Main		LF		$ -
4" DIP Water Main		LF		$ -
6" PVC Water Main		LF		$ -
6" DIP Water Main		LF		$ -
8" PVC Water Main		LF		$ -
8" DIP Water Main		LF		$ -
10" PVC Water Main		LF		$ -
10" DIP Water Main		LF		$ -
12" PVC Water Main		LF		$ -
12" DIP Water Main		LF		$ -
2" Valve (includes Curb Box)		Each		$ -
4" Valve (includes Curb Box)		Each		$ -
6" Valve (includes Curb Box)		Each		$ -
8" Valve (includes Curb Box)		Each		$ -
10" Valve (includes Curb Box)		Each		$ -
12" Valve (includes Curb Box)		Each		$ -

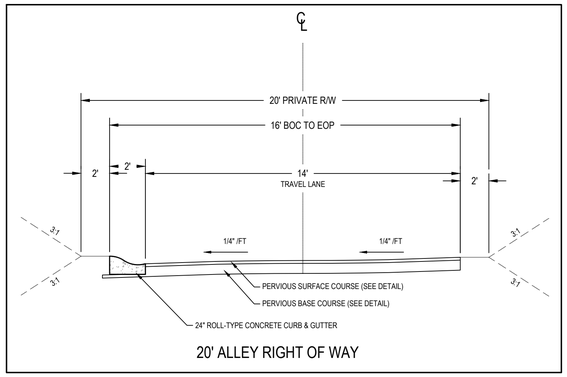
Fire Hydrant (includes Hydrant Leg & Valve)		Each		$ -
Vaults		Each		$ -
Manholes		Each		$ -
Fittings		Lump Sum		$ -
Service Connections (includes Tap, Service Tubing, Meter Box and Meter Setter)	85	Each	$ 525.00	$ 44,625.00
				$ -
				$ -
				$ -
			Subtotal	**$ 44,625.00**

DRAINAGE	QUANTITY:	UNIT:	UNIT COST:	TOTAL:
15" RCP		LF		$ -
15" Dual Wall HDPE		LF		$ -
15" Dual Wall Polyproplene		LF		$ -
18" RCP	1320	LF	$ 50.00	$ 66,000.00
18" Dual Wall HDPE		LF		$ -
18" Dual Wall Polyproplene		LF		$ -
24" RCP	340	LF	$ 60.00	$ 20,400.00
24" Dual Wall HDPE		LF		$ -
24" Dual Wall Polyproplene		LF		$ -
30" RCP		LF		$ -
30" Dual Wall HDPE		LF		$ -
30" Dual Wall Polyproplene		LF		$ -
36" RCP		LF		$ -
36" Dual Wall HDPE		LF		$ -
36" Dual Wall Polyproplene		LF		$ -
42" RCP		LF		$ -
42" Dual Wall HDPE		LF		$ -
42" Dual Wall Polyproplene		LF		$ -
48" RCP		LF		$ -
48" Dual Wall HDPE		LF		$ -
48" Dual Wall Polyproplene		LF		$ -
15" FES		Each		$ -
18" FES	2	Each	$ 2,000.00	$ 4,000.00
24" FES		Each		$ -
30" FES		Each		$ -
36" FES		Each		$ -
42" FES		Each		$ -
48" FES		Each		$ -
Curb Inlet	13	Each	$ 2,000.00	$ 26,000.00
Yard Inlet		Each		$ -
Manhole (0'-6' Deep)	1	Each	$ 2,000.00	$ 2,000.00
		Each		$ -
				$ -
				$ -
			Subtotal	**$ 118,400.00**

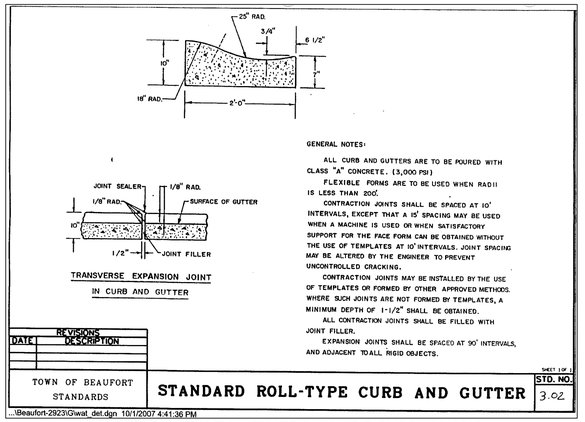
TOTAL ESTIMATE ⇒ $762,125.00



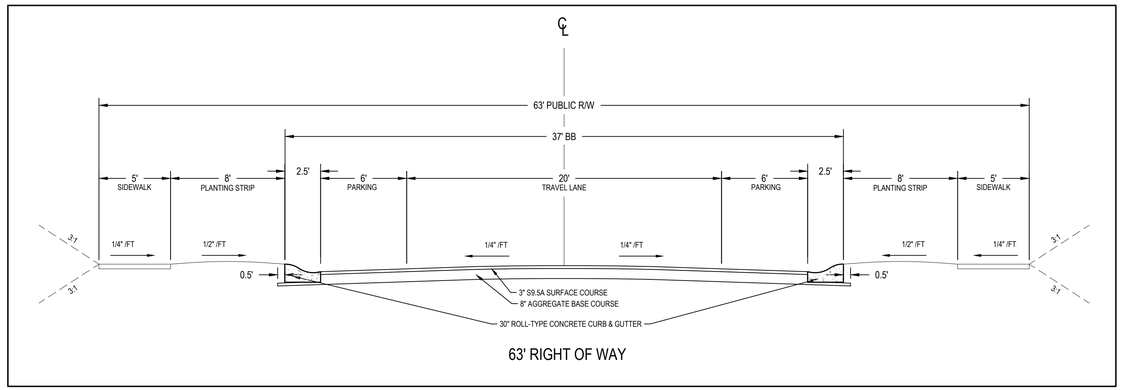
LEONDA DRIVE



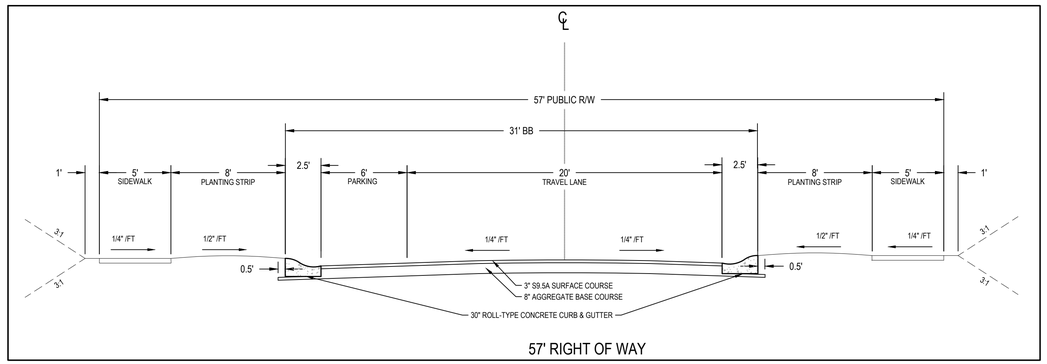
20' ALLEY RIGHT OF WAY



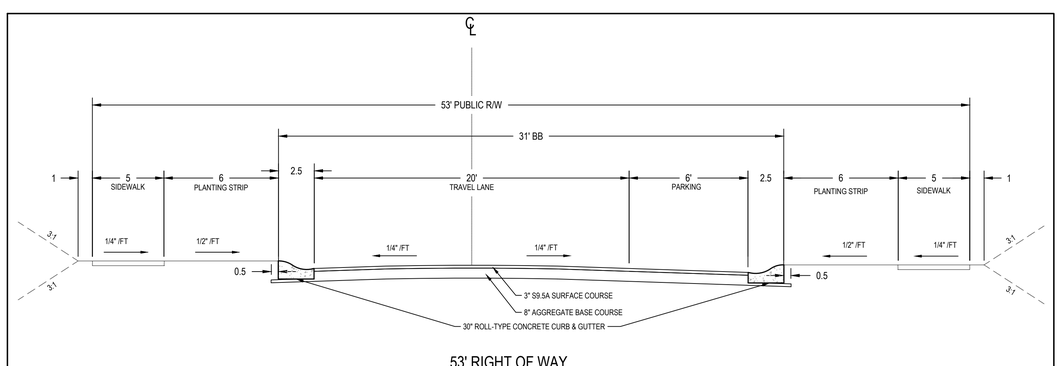
NOTE: ALLEYS TO UTILIZE 24" WIDE CURBING AND ROADWAYS TO UTILIZE 30" WIDE CURBING



63' RIGHT OF WAY

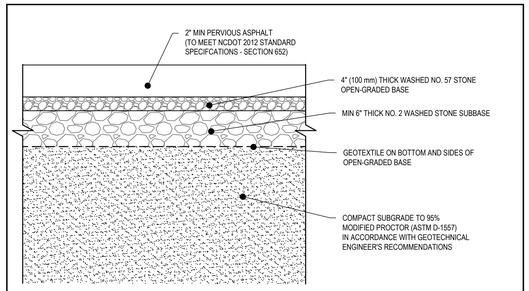


57' RIGHT OF WAY



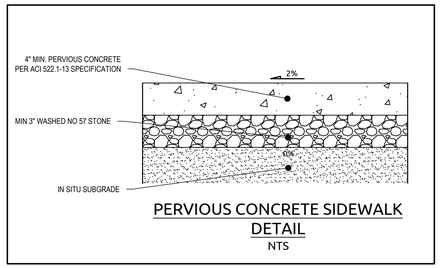
53' RIGHT OF WAY

PERVIOUS SURFACE DETAILS



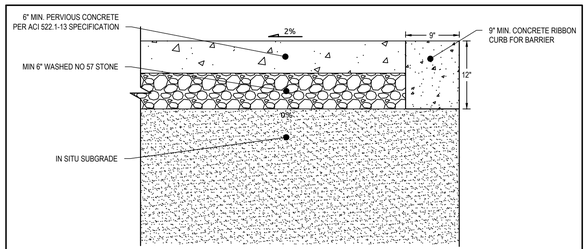
PERVIOUS ASPHALT IN ALLEY AREAS DETAIL

NTS



PERVIOUS CONCRETE SIDEWALK DETAIL

NTS

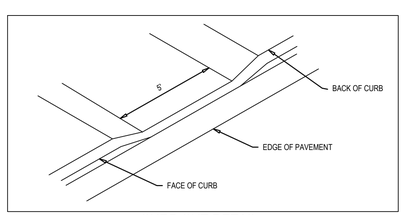


PERVIOUS CONCRETE IN ALLEYS & PRIVATE PARKING AREAS DETAIL

NTS

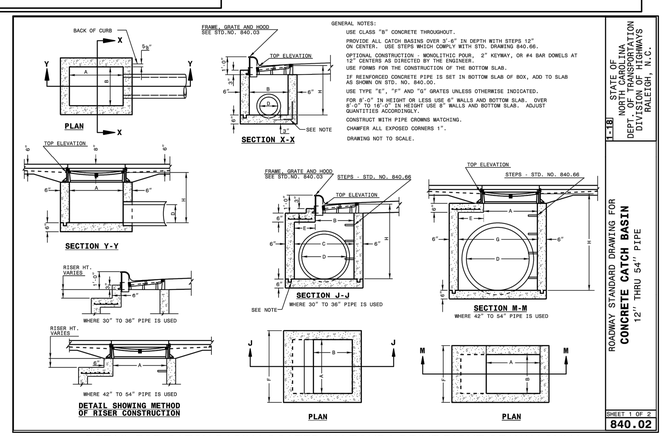
ADDITIONAL NOTES:

1. FOLLOW CONSTRUCTION SEQUENCE SPECIFIED BY NCDEQ STORMWATER DESIGN MANUAL C-5 PERMEABLE PAVEMENT.
2. MUST USE WASHED STONE TO PREVENT CLOGGING.
3. SLOPE OF SUBGRADE MAY NOT BE GREATER THAN 2%
4. A MINIMUM OF 50 INCHES/HOUR PAVEMENT SURFACE INFILTRATION RATE MUST BE MAINTAINED.
5. ASTM C1701 STANDARD TEST METHOD FOR INFILTRATION RATE OF IN PLACE PERVIOUS CONCRETE RECOMMENDED.
6. FOLLOW MAINTENANCE REQUIREMENTS SPECIFIED BY NCDEQ STORMWATER DESIGN MANUAL, SECTION C-5 PERMEABLE PAVEMENT.
7. SIGNAGE IS RECOMMENDED.
8. PERMEABLE PAVEMENT STRUCTURAL DESIGN BASED ON SOIL REPORT AND RECOMMENDATIONS, AND PERVIOUSPAVE V1.0 DESIGN SOFTWARE BY AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA)



CURB CUT DETAIL

N.T.S.



DETAIL FOR CATCH BASIN LOCATED IN LEONDA DRIVE RIGHT OF WAY ONLY

WithersRavenel
Engineers | Planners | Surveyors
219 Station Road | Ste 101 | Wilmington, NC 28405 | t: 910.256.7277 | license #: C-0832 | www.withersravenel.com

BEAU COAST PHASE 5

BEAUFORT, NC

ROADWAY & STORM DRAIN DETAILS

Job No. 02080976.50	Drawn By TG
Date 2/13/2020	Designer JSB

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER JOSEPH S. BOYD
3-4-21

Revisions

Sheet No.
D1.0

K:\08-08-09\02080976.50-Beau Coast Phase 5\CAD\Drawing Sets\Construction\D1.0 DETAILS.dwg- Thursday, March 4, 2021 9:32:22 AM - BOYD, JOSEPH

Town of Beaufort, NC
701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort Planning Board Regular Meeting
6:00 PM Monday, March 15, 2021 – Virtual Meeting via Zoom

AGENDA CATEGORY: New Business

SUBJECT: Preliminary Plat - Beau East Village Phase 1

BRIEF SUMMARY:

The applicant wishes to subdivide a Subdivide a 41.79 Acre Tract into 108 Lots (60 Single-Family & 48 Townhouses). In addition to Planning Staff the Town Engineer and applicants Engineer will also be available to answer questions regarding the proposed infrastructure.

REQUESTED ACTION:

Recommendation to Board of Commissioners

EXPECTED LENGTH OF PRESENTATION:

10 Minutes

SUBMITTED BY:

Kyle Garner, AICP

Planning & Inspections Director

BUDGET AMENDMENT REQUIRED:

N/A

To: Town of Beaufort Board of Commissioners

From: Kyle Garner, AICP, Town Planner

Date: February 25, 2021

Project Beaufort East Village Phase I – Preliminary Plat

THE QUESTION: Subdivide a 41.79 Acre Tract into 108 Lots

BACKGROUND:

Location:	Ricks Avenue, George & Leonda Drive
Owners:	Blue Treasure, LLC
Requested Action:	Subdivide a 41.16 acre tract into 108 lots
Existing Zoning	PUD
Pin #:	7306207193750002, 730508796926000, 730619615640000
Size:	41.79 Acres
Amount of Recreation Space:	1.58 Acres
Amount of Open Space:	23.02 Acres
Existing Land Use:	Undeveloped
Adjoining Land Use & Zoning:	North – By undeveloped residential, zoned PUD & Developed residential, Zoned R-8 South – By residential developed property zoned R-8 East – By undeveloped residential, zoned PUD & Developed residential, Zoned R-8 West – By residential developed property zoned R-8 & TCA

SPECIAL INFORMATION: This Preliminary Plat was approved in August 2016 and expired in 2018. The design/layout has not changed and the applicant is resubmitting because time had expired on the approval.

This is the first phase of development for the Planned Unit Development for Blue Treasure/Beaufort East Village that was approved in June of 2015. In 2015 the Commissioners placed six conditions on the request. As part of Beaufort East Village Phase I four of these conditions have been addressed and are as follows:

1. Perform a traffic study as a precondition of the development of Beaufort East Village. ***This item has been complete and a presentation given at the August 29, 2016 Board of Commissioner Workshop.***

3. Create 20-foot buffers on Willow, Charles and Jefferson streets. ***These buffers are shown on the development plans.***

4. Install a multi-use path from Ocean Street to Willow Street. ***The location of the multi-use path is included in the development plans and will be installed per Town specs.***

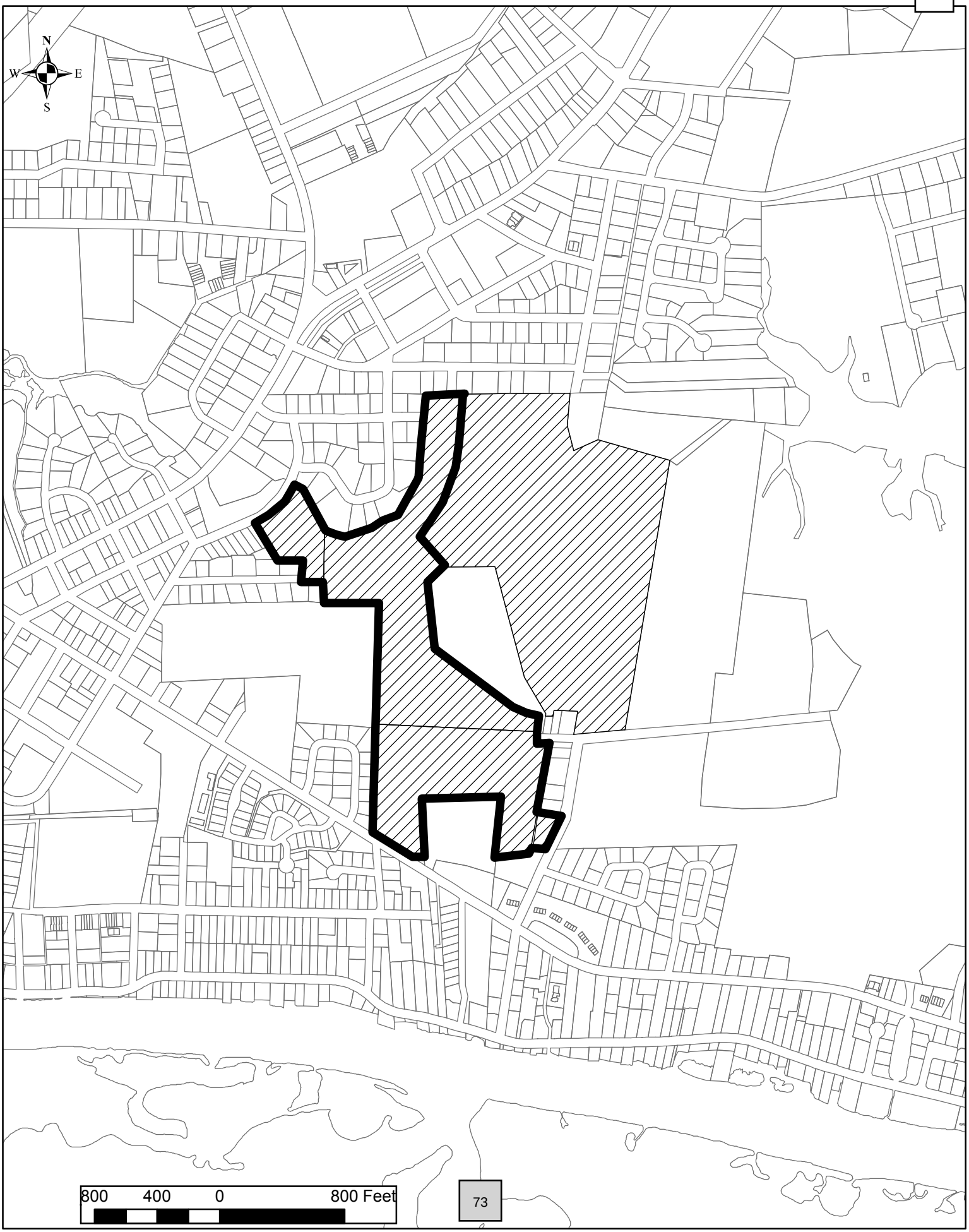
5. Install sidewalks on Ricks Avenue, provided the Town assists with acquisition of easements. ***The developer's engineers are working with Town Engineering staff to meet this condition.***

Public Utilities & Works:
Town Water
Town Sewer

OPTIONS:
1. Approve the request as presented
2. Deny the request.
3. Table the request.

ATTACHMENTS:
Attachment – A – Vicinity Map
Attachment – B – Preliminary Plat Maps

Preliminary Plat -.41.16 acres - Beaufort East Village - Phase I



CONSTRUCTION DRAWINGS FOR

BEAUFORT EAST VILLAGE

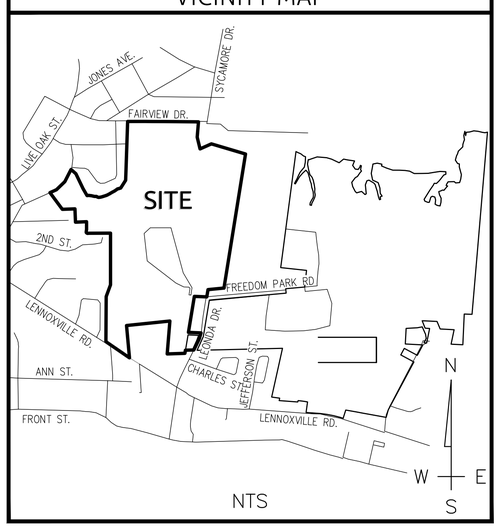
PHASE 1

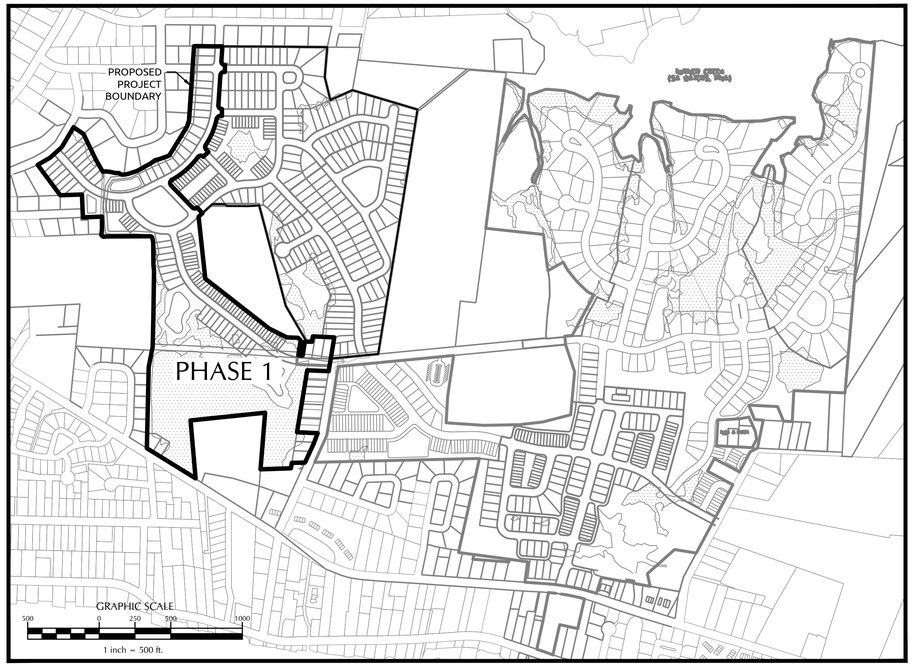
BEAUFORT, NC

SEPTEMBER 2020

CONSTRUCTION PLANS
FOR: BEAUFORT EAST VILLAGE PH 1
W&R PROJECT NO.: 02080976

VICINITY MAP





INDEX OF SHEETS

SHEET NO.	SHEET TITLE
C-1	PROJECT NOTES
C-2	EXISTING CONDITIONS
C-3	SUBDIVISION PLAN
C-4	ZONING & LOT USE PLAN
C-5	UTILITY PLAN
C-6	OVERALL DRAINAGE PLAN
C-7	EROSION CONTROL PLAN
C-8	PINE VIEW BLVD. PLAN & PROFILE STA. 0+00 TO 13+00
C-9	PINE VIEW BLVD STA. 13+00 TO 19+89 AND GEORGE ST. STA. 10+00 TO 2+50 PLAN & PROFILE
C-10	SPOONBILL LANE PLAN & PROFILE STA. 0+00 TO 7+13
C-11	FREEDOM PARK RD. PLAN & PROFILE STA. 0+00 TO 13+00
C-12	FREEDOM PARK RD. PLAN & PROFILE STA. 13+00 TO 15+75 & YELLOWLEGS LANE PLAN & PROFILE
C-13	PS-1 TO MH-1 SEWER RUN PLAN & PROFILE
C-14	LENNOXVILLE ROAD AND LEONDA DRIVE SEWER EXTENSIONS PLAN & PROFILE
P-1	SKIMMER BASIN & BMP #7A WET DETENTION POND DETAILS
P-2	BMP#7B & BMP #7C WET DETENTION POND DETAILS
P-3	BMP#7D WET DETENTION POND DETAILS
L1.0	OVERALL LANDSCAPE PLAN
L1.1	LANDSCAPE PLAN
L1.2	LANDSCAPE PLAN
L1.3	LANDSCAPE PLAN
S-1	LANDSCAPE PLAN DETAILS
D-1	PRELIMINARY STREET LIGHTING PLAN
D-2	ROADWAY & STORM DRAIN DETAILS
D-3	WATER DETAILS
D-4	WATER & SEWER DETAILS
D-5	SEWER, STORM & ROADWAY DETAILS
D-6	WATER, SEWER & STORM DETAILS
PS-1	EROSION CONTROL DETAILS
PS-2	PUMP STATION GENERAL NOTES
PS-3	PUMP STATION SITE PLAN
PS-4	PUMP STATION ACCESS ROAD LAYOUT
PS-5	PUMP STATION PLAN DETAIL
PS-6	PUMP STATION SECTION DETAIL
PS-7	PUMP STATION DETAILS
PS-8	PUMP STATION ELECTRICAL PLAN & DETAILS
PS-9	PUMP STATION ELECTRICAL PLAN & DETAILS
PS-10	PUMP STATION MISCELLANEOUS DETAILS
PS-11	PUMP STATION MISCELLANEOUS DETAILS
	PUMP STATION MISCELLANEOUS DETAILS

LEGEND

LINETYPE DESCRIPTION		LINETYPE DESCRIPTION	
EXISTING WATERLINE	W	PROPOSED UNDERGROUND ELECTRIC	UE
PROPOSED WATERLINE	W	EXISTING GASLINE	G
EXISTING STORM DRAINAGE		PROPOSED GASLINE	G
PROPOSED STORM DRAINAGE		SILT FENCE	SF
EXISTING SANITARY SEWER	SS	FENCE	XX XX XX XX XX XX
PROPOSED SANITARY SEWER	SS	TREE PROTECTION	TP
EXISTING FORCE MAIN	FM	SWALE	
PROPOSED FORCE MAIN	FM	RIGHT-OF-WAY	
EXISTING ELECTRIC (OVERHEAD)	E	EXISTING WETLANDS	
PROPOSED ELECTRIC (OVERHEAD)	E	1' CONTOUR	
EXISTING UNDERGROUND ELECTRIC	UE	5' CONTOUR	
EXISTING EASEMENT		PROPOSED EASEMENT	

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD
9-29-2020

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

PREPARED BY:

WithersRavenel
Engineers | Planners | Surveyors
219 Station Road, Suite 101 | Wilmington, NC 28405 | t: 910.256.9277 | license #: C-0832 |
www.withersravenel.com

DEVELOPER/OWNER

BLUE TREASURE, LLC
100 WESTON ESTATES WAY
CARY, NORTH CAROLINA 27513
919-481-3000

ATTN: KARL BLACKLEY

K:\08\08-0970\0800976.20-Beaufort East Village Ph 1\Civil\COVER-BEU-PH1.dwg- Wednesday, September 30, 2020 8:06:22 AM - BOYD, JOSEPH

DEVELOPMENT DATA:

TOTAL PHASE 1 AREA: 41.79 AC.

ALL OF PHASE 1 DRAINS TO SC WATERS

AREA OF LOTS: 11.74 AC.
RECREATION AREA: 1.58 AC.
AREA OF R/W: 5.45 AC.
AREA OF WETLANDS: 13.97 AC.
AREA OF OPEN SPACE: 23.02 AC.

PROPOSED STREETS: 4,527 LF

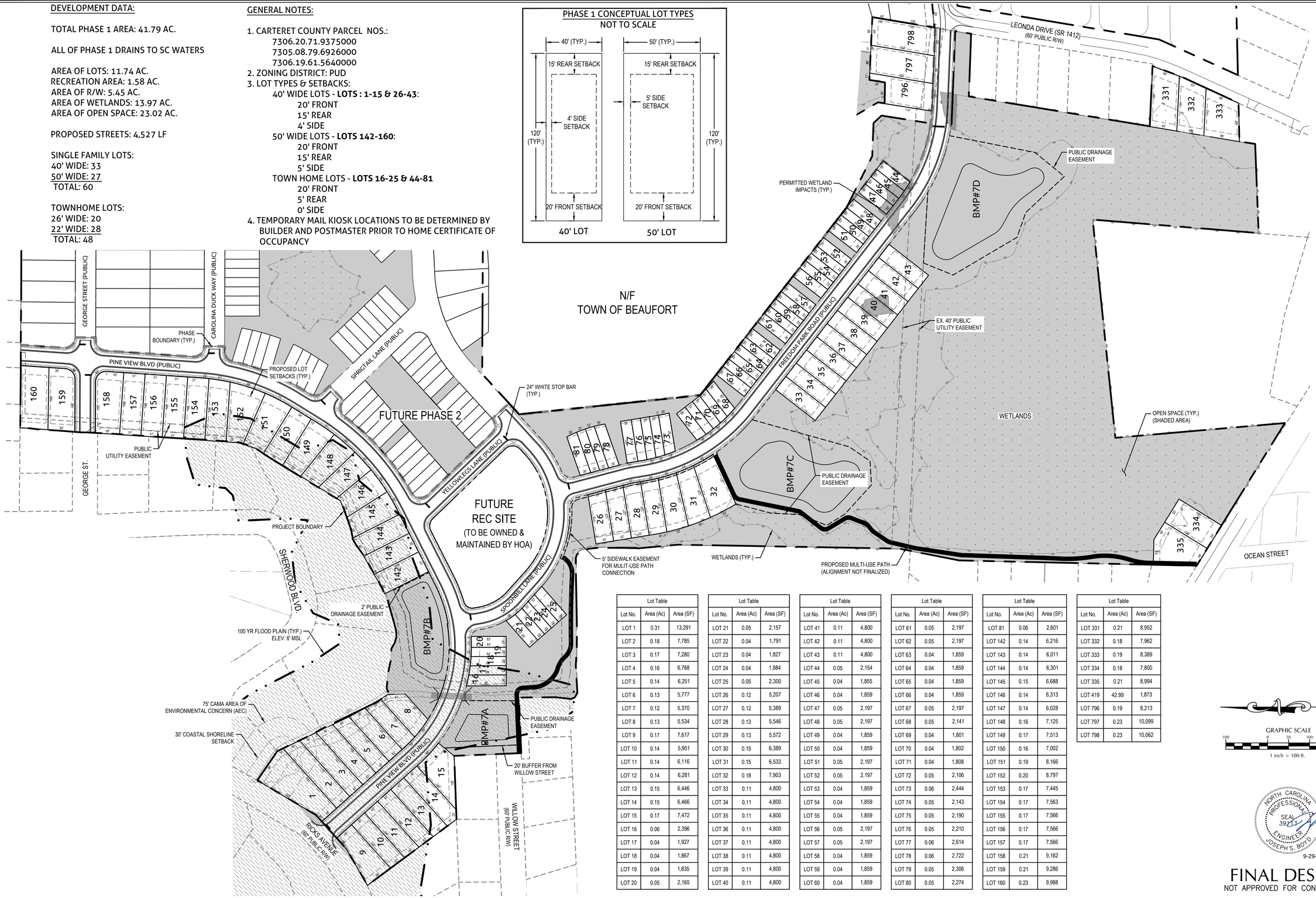
SINGLE FAMILY LOTS:
40' WIDE: 33
50' WIDE: 27
TOTAL: 60

TOWNHOME LOTS:
26' WIDE: 20
22' WIDE: 28
TOTAL: 48

GENERAL NOTES:

1. CARTERET COUNTY PARCEL NOS.:
   7306.20.71.9375000
   7305.08.79.6926000
   7306.19.61.5640000
2. ZONING DISTRICT: PUD
3. LOT TYPES & SETBACKS:
   40' WIDE LOTS - **LOTS : 1-15 & 26-43**:
   20' FRONT
   15' REAR
   4' SIDE
   50' WIDE LOTS - **LOTS 142-160**:
   20' FRONT
   15' REAR
   5' SIDE
   TOWN HOME LOTS - **LOTS 16-25 & 44-81**
   20' FRONT
   5' REAR
   0' SIDE
4. TEMPORARY MAIL KIOSK LOCATIONS TO BE DETERMINED BY BUILDER AND POSTMASTER PRIOR TO HOME CERTIFICATE OF OCCUPANCY

PHASE 1 CONCEPTUAL LOT TYPES
NOT TO SCALE



Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 1	0.31	13,291
LOT 2	0.18	7,785
LOT 3	0.17	7,280
LOT 4	0.16	6,768
LOT 5	0.14	6,251
LOT 6	0.13	5,777
LOT 7	0.12	5,370
LOT 8	0.13	5,534
LOT 9	0.17	7,617
LOT 10	0.14	5,951
LOT 11	0.14	6,116
LOT 12	0.14	6,281
LOT 13	0.15	6,446
LOT 14	0.15	6,466
LOT 15	0.17	7,472
LOT 16	0.06	2,396
LOT 17	0.04	1,927
LOT 18	0.04	1,867
LOT 19	0.04	1,835
LOT 20	0.05	2,165

Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 21	0.05	2,157
LOT 22	0.04	1,791
LOT 23	0.04	1,827
LOT 24	0.04	1,884
LOT 25	0.05	2,300
LOT 26	0.12	5,207
LOT 27	0.12	5,389
LOT 28	0.13	5,546
LOT 29	0.13	5,572
LOT 30	0.15	6,389
LOT 31	0.15	6,533
LOT 32	0.18	7,903
LOT 33	0.11	4,800
LOT 34	0.11	4,800
LOT 35	0.11	4,800
LOT 36	0.11	4,800
LOT 37	0.11	4,800
LOT 38	0.11	4,800
LOT 39	0.11	4,800
LOT 40	0.11	4,800

Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 41	0.11	4,800
LOT 42	0.11	4,800
LOT 43	0.11	4,800
LOT 44	0.05	2,154
LOT 45	0.04	1,855
LOT 46	0.04	1,859
LOT 47	0.05	2,197
LOT 48	0.05	2,197
LOT 49	0.04	1,859
LOT 50	0.04	1,859
LOT 51	0.05	2,197
LOT 52	0.05	2,197
LOT 53	0.04	1,859
LOT 54	0.04	1,859
LOT 55	0.04	1,859
LOT 56	0.05	2,197
LOT 57	0.05	2,197
LOT 58	0.04	1,859
LOT 59	0.04	1,859
LOT 60	0.04	1,859

Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 61	0.05	2,197
LOT 62	0.05	2,197
LOT 63	0.04	1,859
LOT 64	0.04	1,859
LOT 65	0.04	1,859
LOT 66	0.04	1,859
LOT 67	0.05	2,197
LOT 68	0.05	2,141
LOT 69	0.04	1,801
LOT 70	0.04	1,802
LOT 71	0.04	1,808
LOT 72	0.05	2,106
LOT 73	0.06	2,444
LOT 74	0.05	2,143
LOT 75	0.05	2,190
LOT 76	0.05	2,210
LOT 77	0.06	2,614
LOT 78	0.06	2,722
LOT 79	0.05	2,306
LOT 80	0.05	2,274

Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 81	0.06	2,601
LOT 142	0.14	6,216
LOT 143	0.14	6,011
LOT 144	0.14	6,301
LOT 145	0.15	6,688
LOT 146	0.14	6,313
LOT 147	0.14	6,028
LOT 148	0.16	7,125
LOT 149	0.17	7,513
LOT 150	0.16	7,002
LOT 151	0.19	8,166
LOT 152	0.20	8,797
LOT 153	0.17	7,445
LOT 154	0.17	7,563
LOT 155	0.17	7,566
LOT 156	0.17	7,566
LOT 157	0.17	7,566
LOT 158	0.21	9,162
LOT 159	0.21	9,286
LOT 160	0.23	9,988

Lot Table		
Lot No.	Area (Ac)	Area (SF)
LOT 331	0.21	8,952
LOT 332	0.18	7,962
LOT 333	0.19	8,389
LOT 334	0.18	7,800
LOT 335	0.21	8,994
LOT 419	42.99	1,873
LOT 796	0.19	8,213
LOT 797	0.23	10,099
LOT 798	0.23	10,062

GRAPHIC SCALE
100 0 50 100 200
1 inch = 100 ft.

NORTH CAROLINA PROFESSIONAL SEAL 39213 ENGINEER JOSEPH S. BOYD
9-29-2020

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	REVISED BMP #5 PER SEWER EASEMENT	7-11-16	JSB
3	REVISED PER TOWN SW COMMENTS	8-1-16	JSB
4	UPDATED PER EX.40' FORCEMAIN EASEMENT	9-20-16	JSB
5	REMOVED 30' UTILITY EASEMENT BEHIND LOTS 44-81	9-29-20	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1
IMPROVEMENTS WITHIN DRAINAGE AREA #7
Beaufort Carteret County North Carolina

SUBDIVISION PLAN

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No.
C-3

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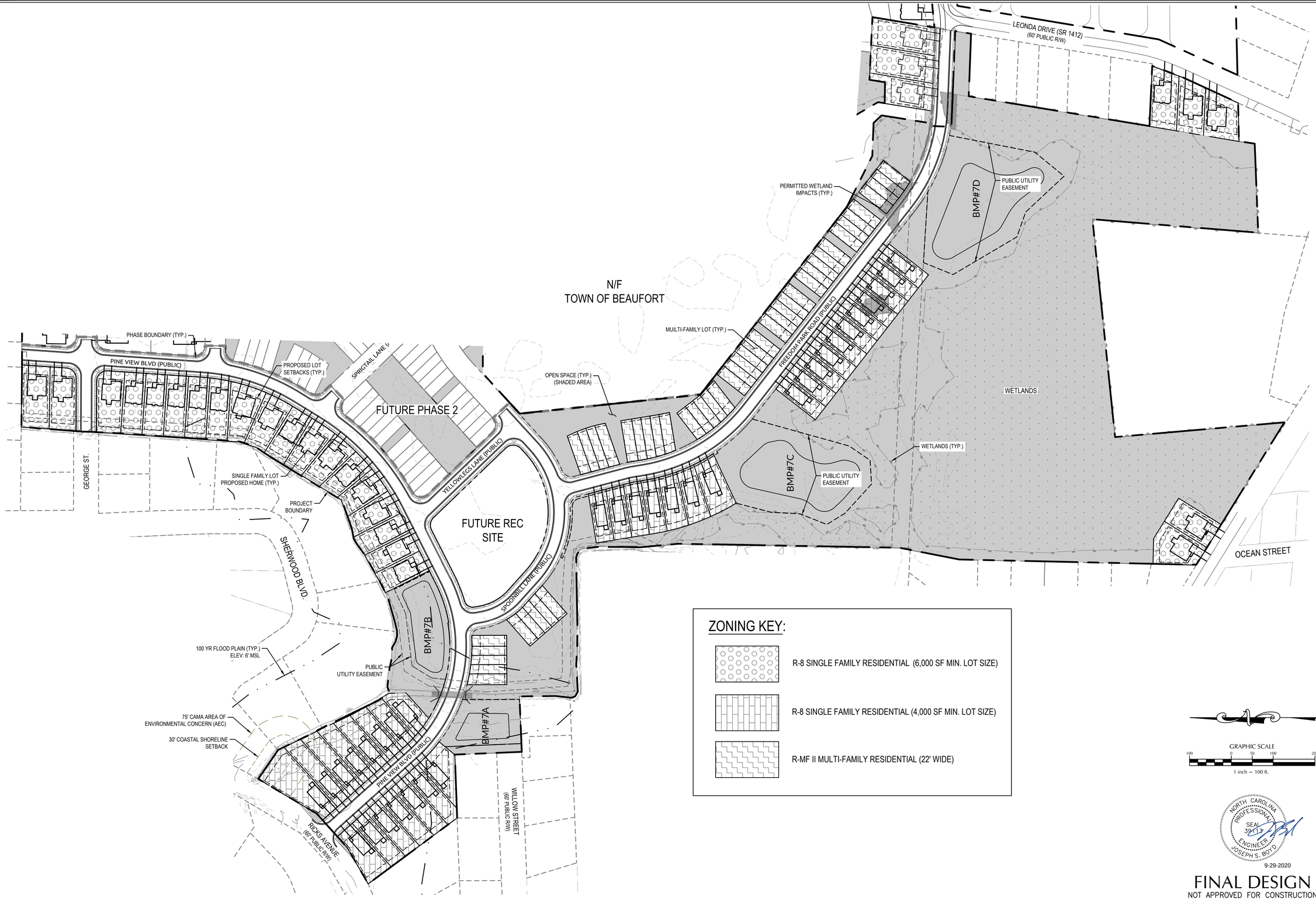

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	REVISED BMP #5 PER SEWER EASEMENT	7-11-16	JSB
3	UPDATED PER EX.40' FORCEMAIN EASEMENT	9-20-16	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

ZONING & LOT USE PLAN

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No. C-4

78

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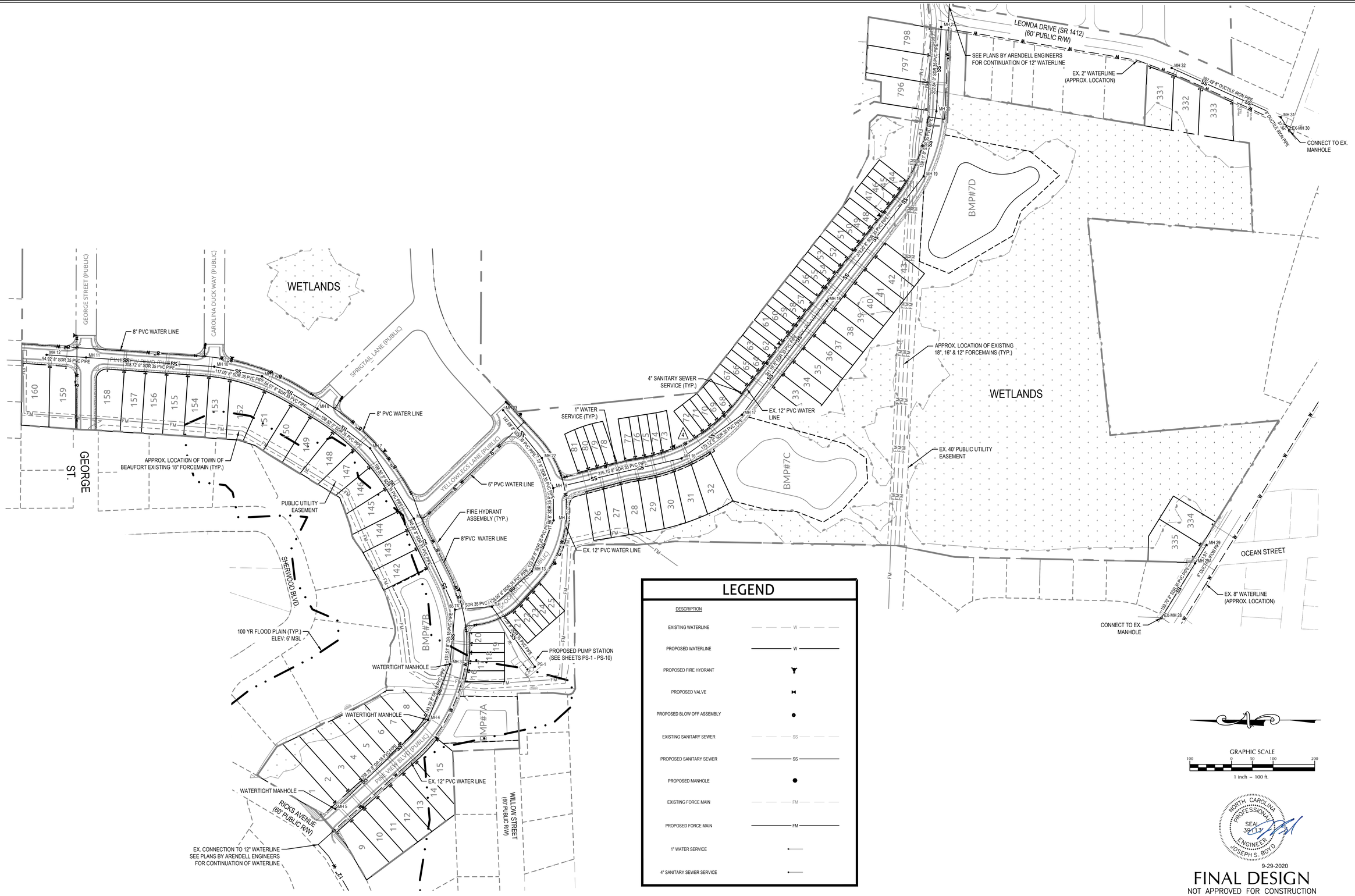

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	REVISED BMP #5 & EX. FORCEMAIN PER SEWER EASEMENT	7-11-16	JSB
3	ADDED SEWER EXT. TO LOTS 331-335 & UPDATED EX FM'S	10-21-16	JSB
4	WATERLINE REVISION	2-16-18	JSB
5	WL UPDATES PER 12" LINE INSTALLED	9-29-19	JSB

Designer	JSB	Scale	NOTED
Drawn By	JSB	Date	9/14/15
Checked By	JJW	Job No.	02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

UTILITY PLAN

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Sheet No. C-5

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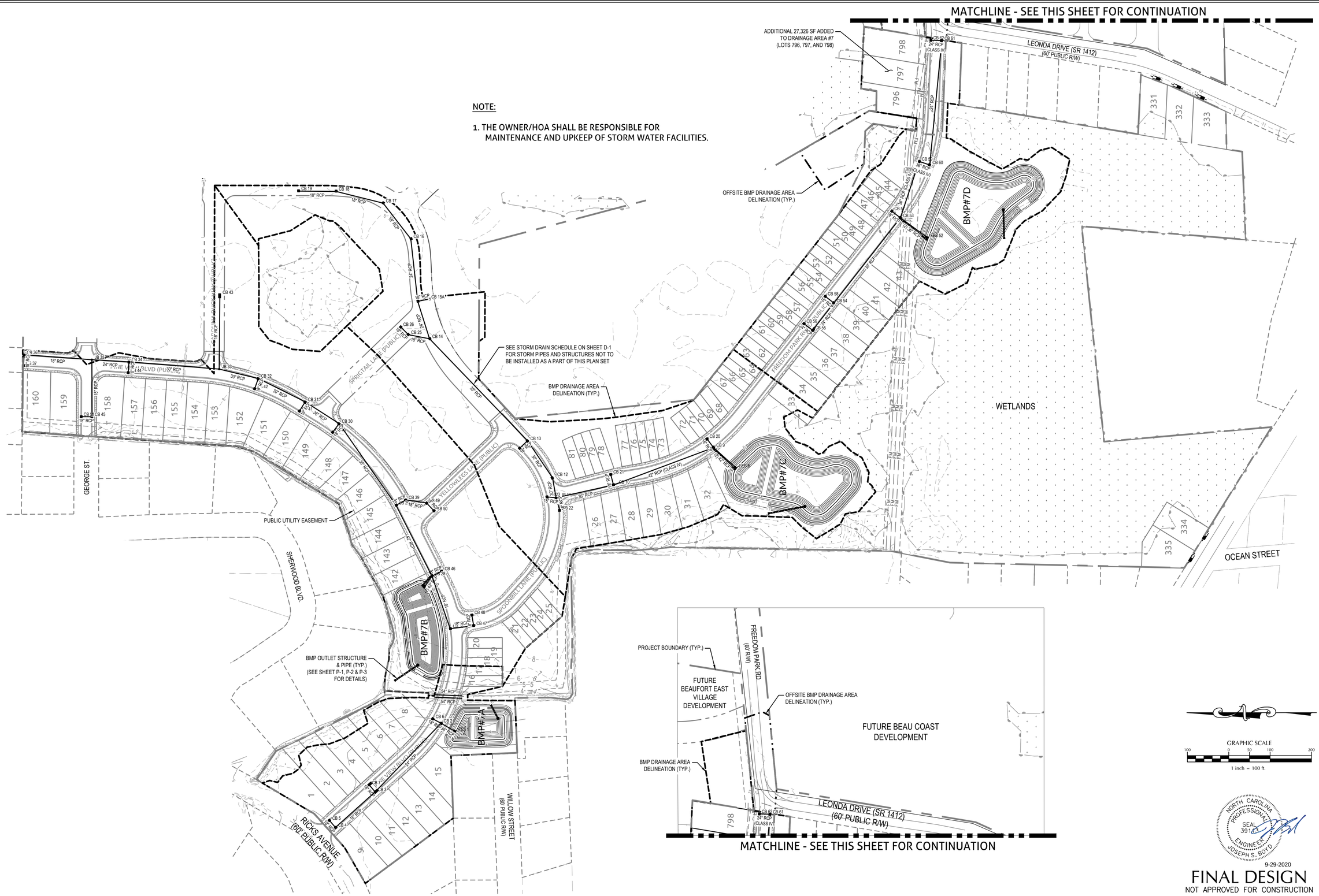
NOTE:

1. THE OWNER/HOA SHALL BE RESPONSIBLE FOR MAINTENANCE AND UPKEEP OF STORM WATER FACILITIES.



No.	Revision	Date	By
1	REVISED BMP #5 PER SEWER EASEMENT	7-11-16	JSB
2	REVISED PER TOWN SW COMMENTS	8-1-16	JSB
3	STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer	JSB	Scale	NOTED
Drawn By	JSB	Date	9/14/15
Checked By	JJW	Job No.	02080976.20

BEAUFORT EAST VILLAGE PHASE 1
IMPROVEMENTS WITHIN DRAINAGE AREA #7

Beaufort — Carteret County — North Carolina

DRAINAGE PLAN

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No. C-6

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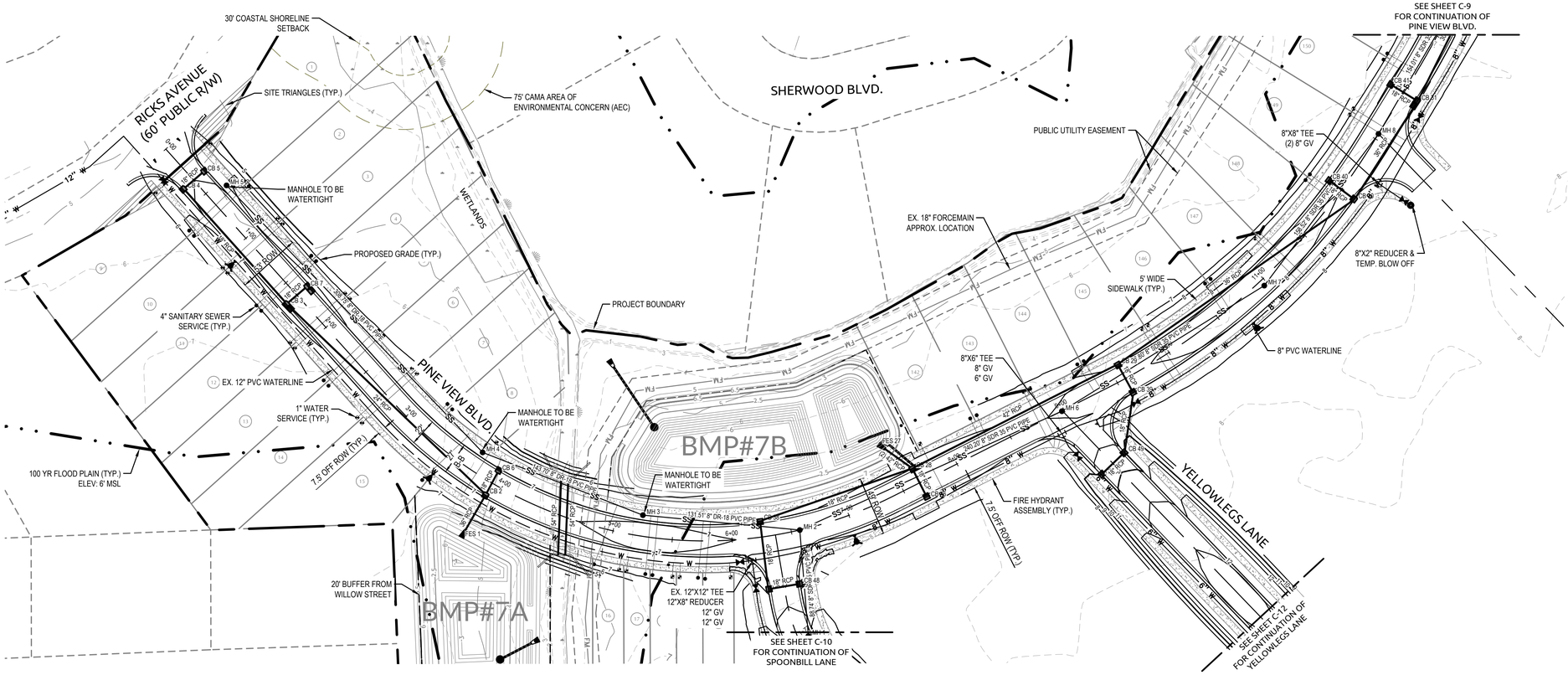

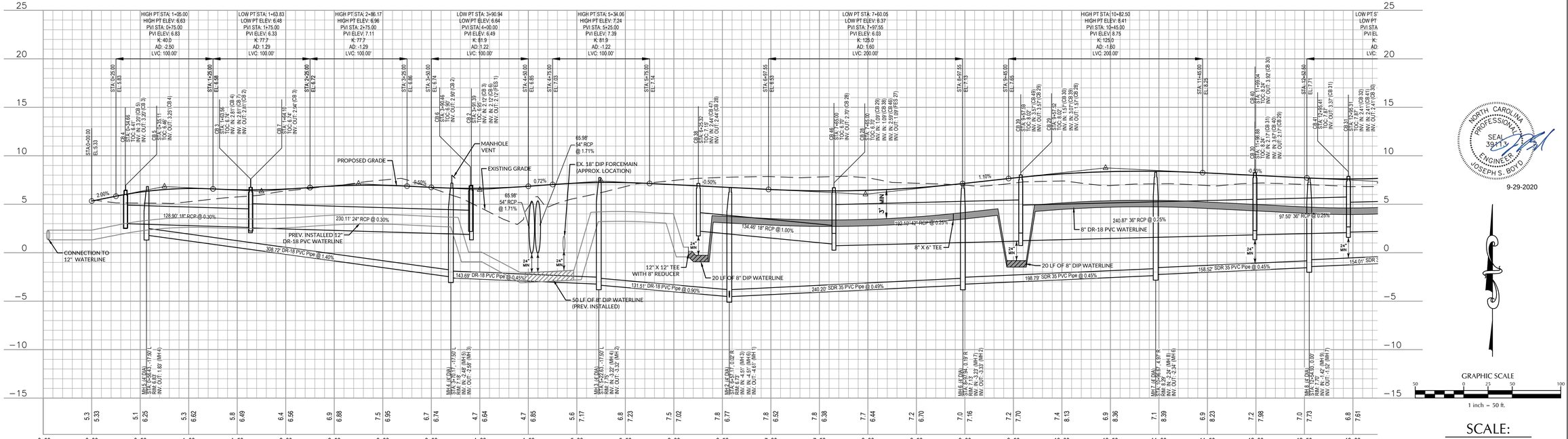

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD
9-29-2020

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

SCALE:
1" = 50' HORIZ.
1" = 5' VERT.

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	REVISED BMP #5 PER SEWER EASEMENT	7-11-16	JSB
3	WATERLINE REVISION	2-16-18	JSB
4	12" WL, STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1
Beaufort Carteret County North Carolina

PINE VIEW BLVD PLAN & PROFILE
STA. 0+00 TO 13+00

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No.
C-8

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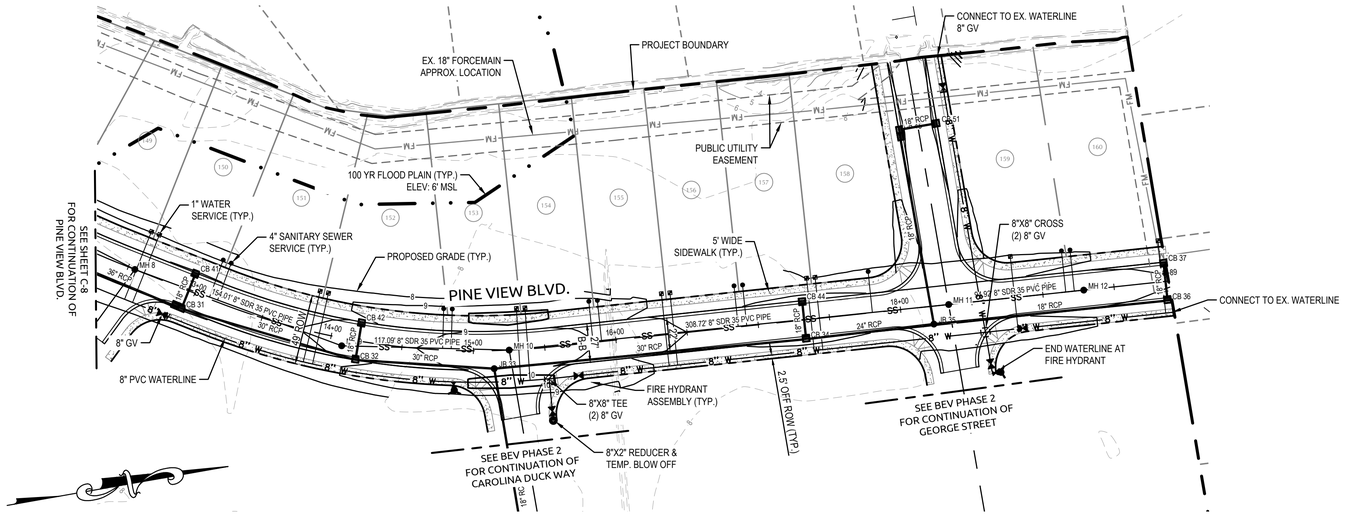

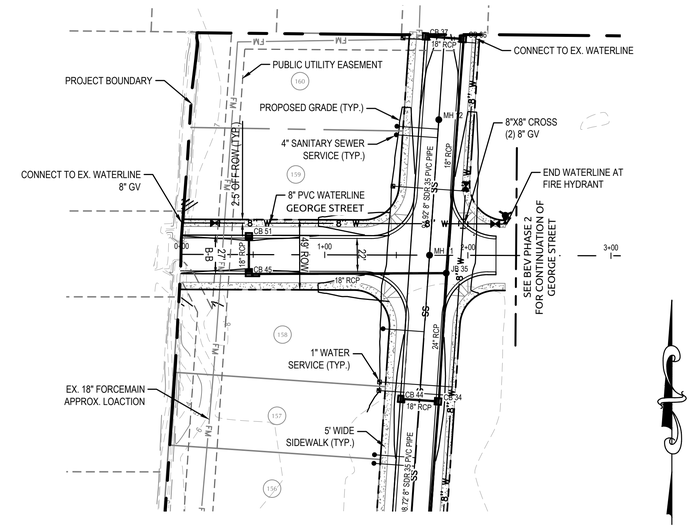

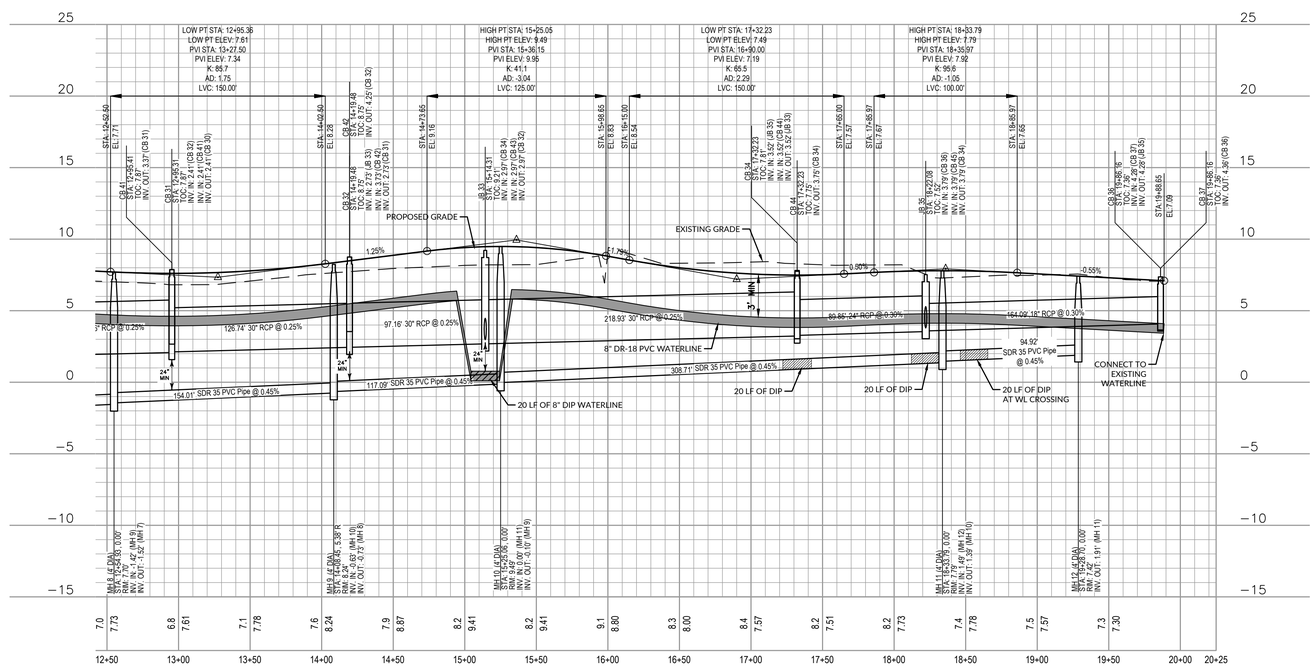

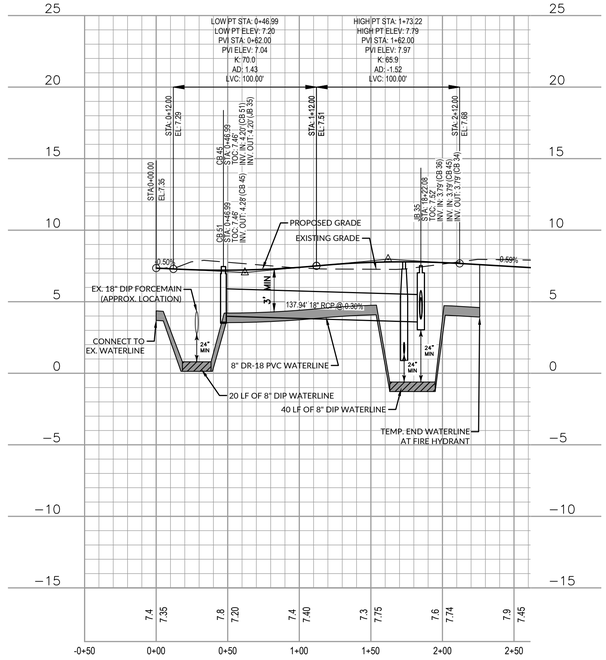

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD

9-29-2020

GRAPHIC SCALE

1 inch = 50 ft.

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

SCALE:
1" = 50' HORIZ.
1" = 5' VERT.

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	REVISED BMP #5 PER SEWER EASEMENT	7-11-16	JSB
3	12" WL, STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

PINE VIEW BLVD STA. 13+00 TO 19+89 AND GEORGE ST. STA. 0+00 TO 2+50 PLAN & PROFILE

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No. C-9

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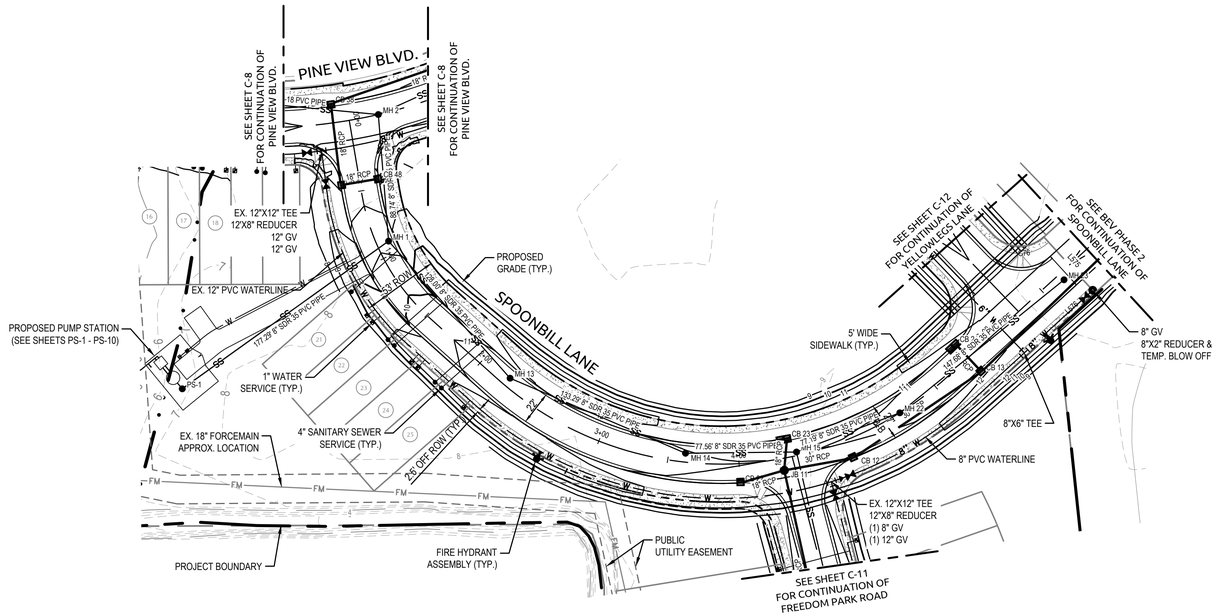


NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD

9-29-2020

GRAPHIC SCALE

1 inch = 50 ft.

FINAL DESIGN

NOT APPROVED FOR CONSTRUCTION

SCALE:

1" = 50' HORIZ.
1" = 5' VERT.

No.	Revision	Date	By
1	REVISED PER FORCEMAIN SEWER EASEMENT	7-11-16	JSB
2	WATERLINE REVISION	2-16-18	JSB
3	12" WL, STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer	JSB	Scale	NOTED
Drawn By	JSB	Date	9/14/15
Checked By	JJW	Job No.	02080976.20

BEAUFORT EAST VILLAGE PHASE 1

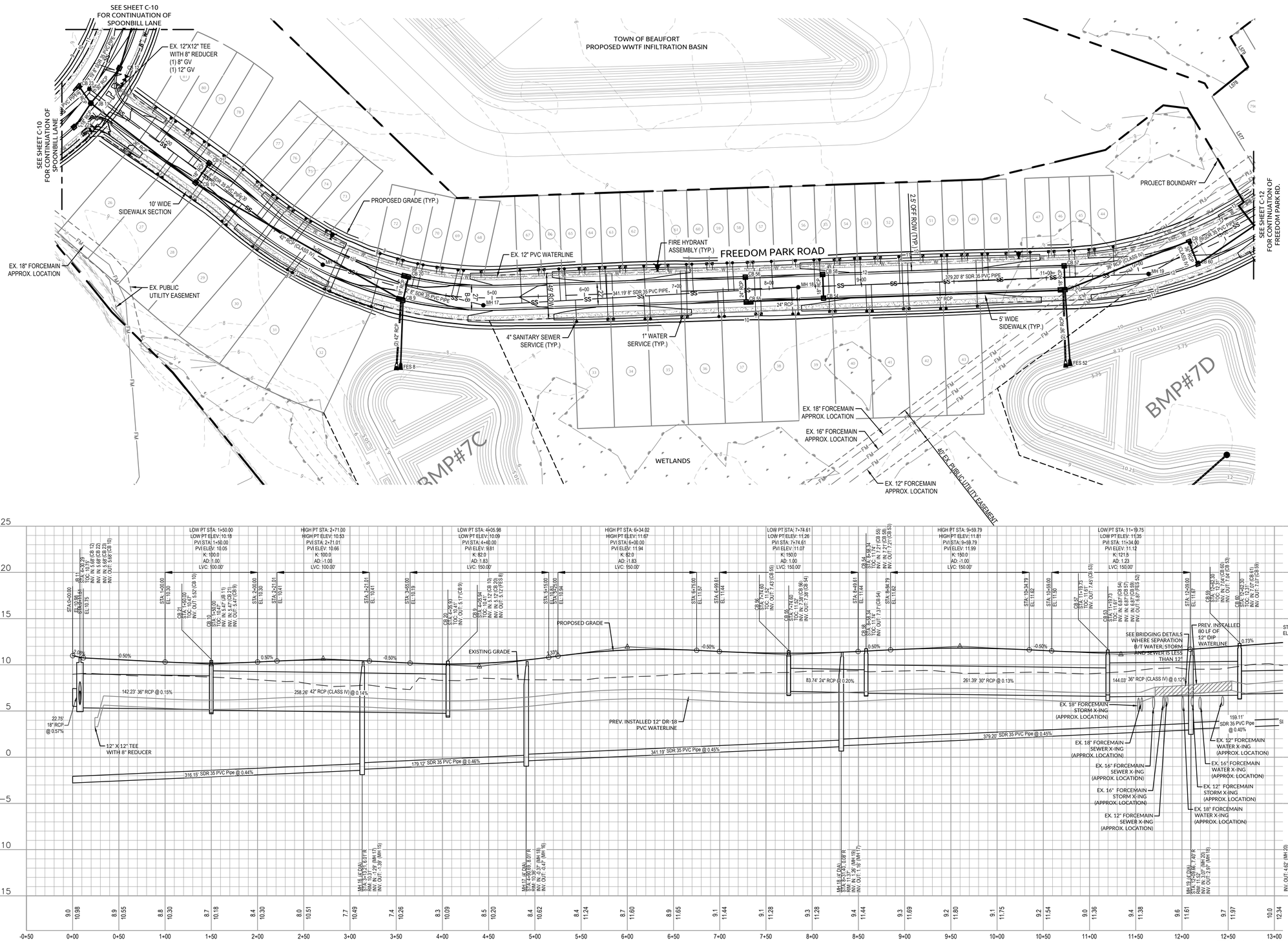
Beaufort Carteret County North Carolina

SPOONBILL LANE PLAN & PROFILE
STA. 0+00 TO 7+13

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No.
C-10

K:\08\08-0970\080976.20-Beaufort East Village Ph 1\CAD\CONSTRUCTION SHEETS.dwg- Tuesday, September 29, 2020 1:01:17 PM - BOYD, JOSEPH



NORTH CAROLINA PROFESSIONAL SEAL 30113 ENGINEER JOSEPH S. BOYD
9-29-2020

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

SCALE:
1" = 50' HORIZ.
1" = 5' VERT.

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	UPDATED EX. EASEMENT & EX FORCEMAINS	9-20-16	JSB
3	REVISED PER NCPWS COMMENTS	03-27-17	JSB
4	WATERLINE REVISION	2-16-18	JSB
5	12" WL, STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer	JSB	Scale	NOTED
Drawn By	JSB	Date	9/14/15
Checked By	JJW	Job No.	02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

FREEDOM PARK ROAD PLAN & PROFILE STA. 0+00 TO 13+00

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Sheet No.
C-11

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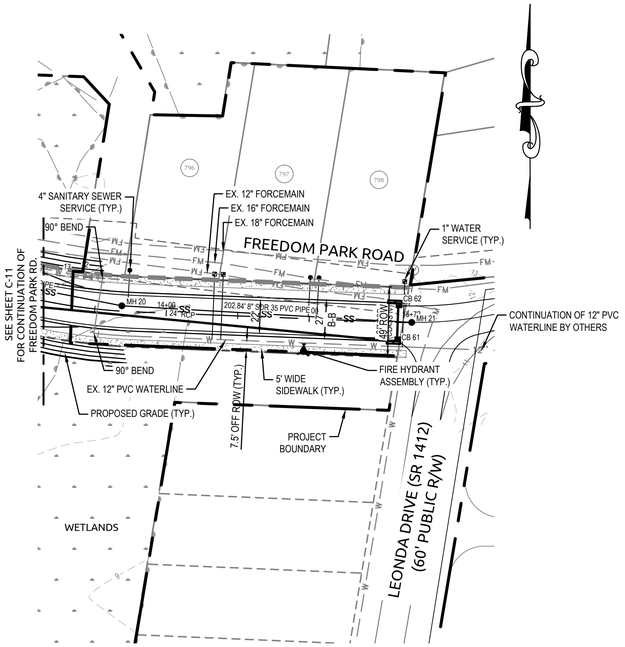

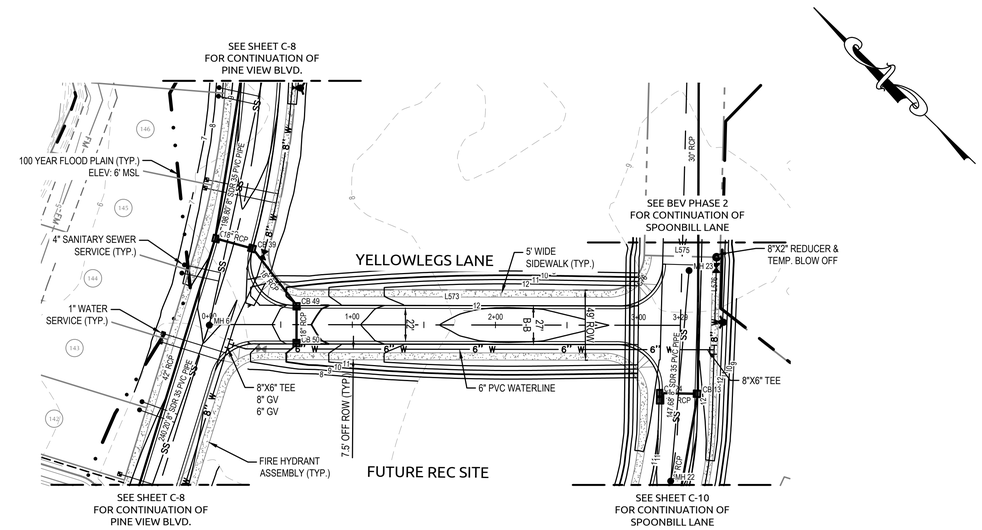

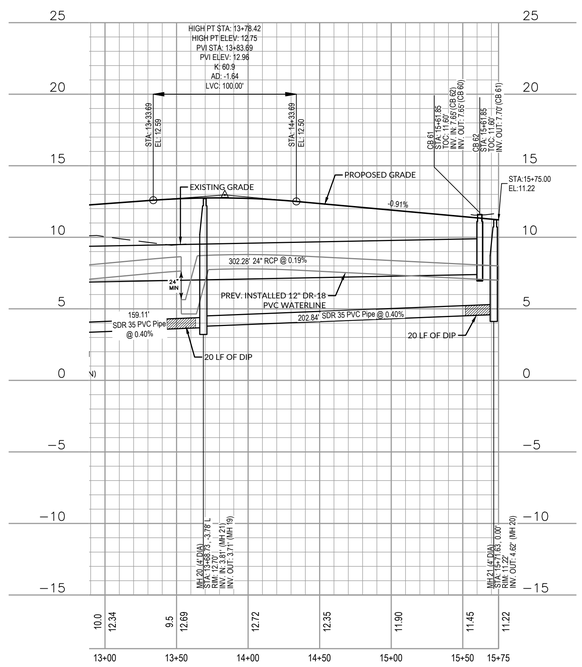

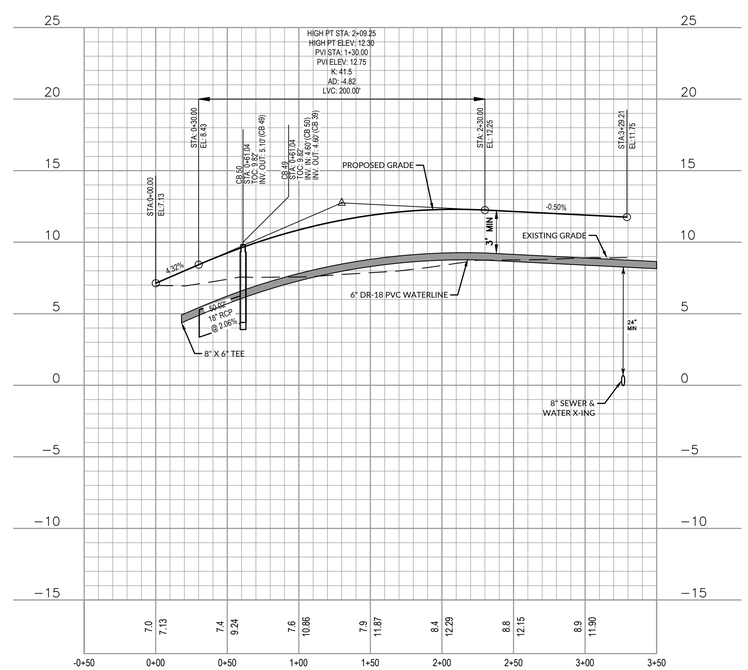

NORTH CAROLINA PROFESSIONAL SEAL 38117 ENGINEER JOSEPH S. BOYD

9-29-2020

GRAPHIC SCALE

50 0 25 50 100

1 inch = 50 ft.

SCALE:

1" = 50' HORIZ.
1" = 5' VERT.

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	6-30-16	JSB
2	UPDATED EX. EASEMENT & EX FORCEMAINS	9-20-16	JSB
3	REVISED PER NCPWS COMMENTS	03-27-17	JSB
4	WATERLINE REVISION	2-16-18	JSB
5	12" WL, STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

FREEDOM PARK RD. STA. 13+00 TO 15+75 AND YELLOWLEGS LANE PLAN & PROFILE

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Sheet No. C-12

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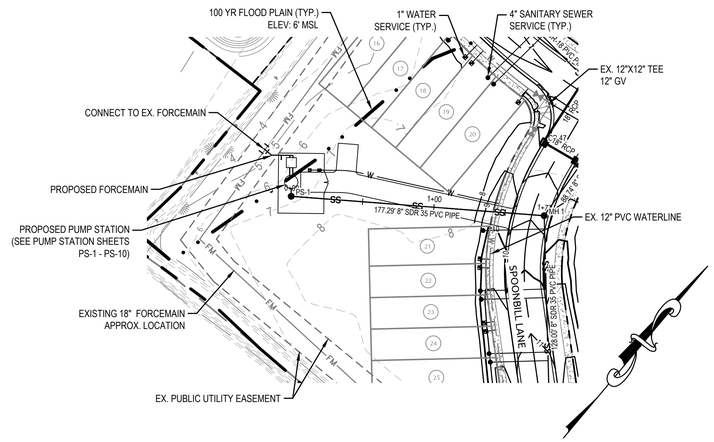

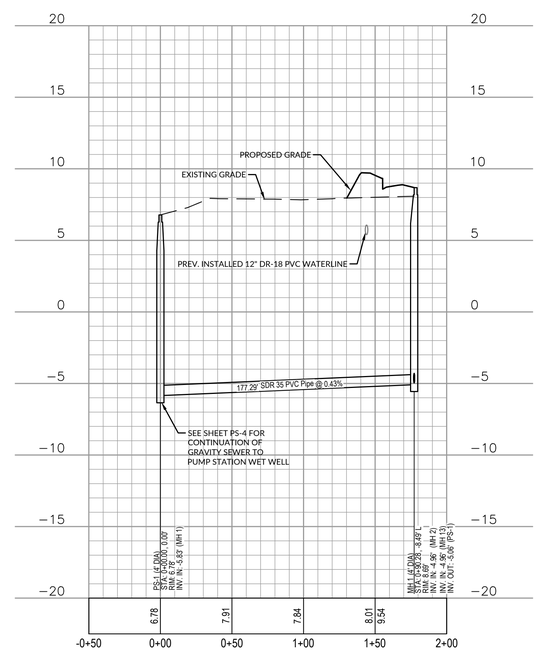

NORTH CAROLINA PROFESSIONAL SEAL 39213 ENGINEER JOSEPH S. BOYD

9-29-2020

GRAPHIC SCALE

50 0 25 50 100

1 inch = 50 ft.

FINAL DESIGN

NOT APPROVED FOR CONSTRUCTION

SCALE:

1" = 50' HORIZ.
1" = 5' VERT.

No.	Revision	Date	By
1	REVISED PER FORCEMAIN SEWER EASEMENT	7-11-16	JSB
2	12" WL, STORM DRAIN & GRADING UPDATES	9-29-20	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1

Beaufort Carteret County North Carolina

PS-1 TO MH-1 SEWER RUN
PLAN & PROFILE

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Sheet No.
C-13

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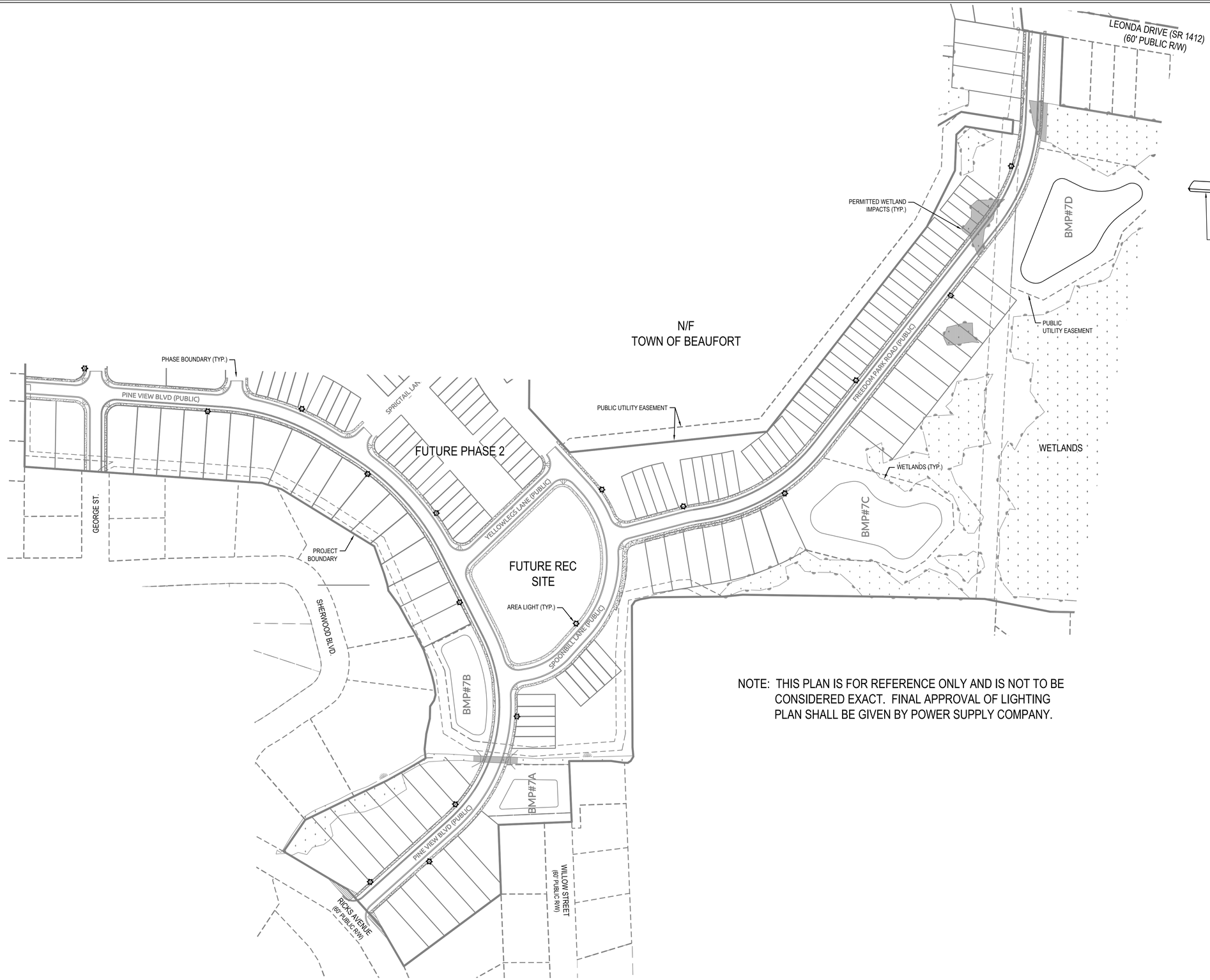
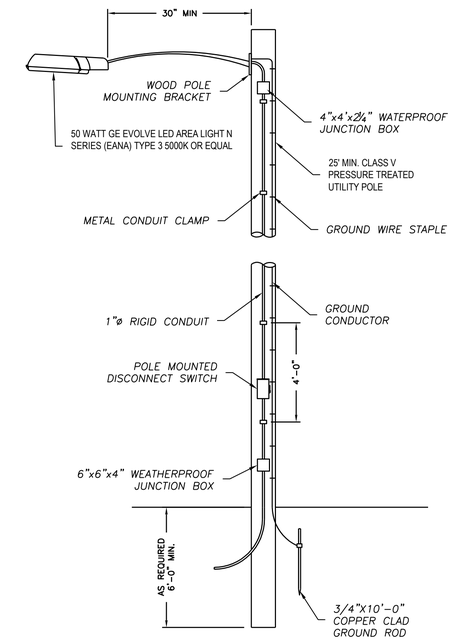


NOTE: THIS PLAN IS FOR REFERENCE ONLY AND IS NOT TO BE CONSIDERED EXACT. FINAL APPROVAL OF LIGHTING PLAN SHALL BE GIVEN BY POWER SUPPLY COMPANY.



LIGHT POLE DETAIL
NOT TO SCALE

GRAPHIC SCALE
100 0 50 100 200
1 inch = 100 ft.

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

No.	Revision	Date	By

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1
Beaufort Carteret County North Carolina

PRELIMINARY STREET LIGHTING PLAN

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1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No.
S-1

K:\08\08-0970\080976.20-Beaufort East Village Ph 1\CAD\CONSTRUCTION SHEETS.dwg- Thursday, December 22, 2016 2:20:39 PM - FALK, SANDRA

STORM SYSTEM DATA

DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	LENGTH	SLOPE	MATERIAL	DOWNSTREAM INVERT	UPSTREAM INVERT
E-FES 94	E-DI 95	24	48.52	1.96%	Reinforced Concrete Pipe	5.73	6.68
~~CB 15~~	~~CB 15A~~	~~18~~	~~26.79~~	~~0.75%~~	~~RCP~~	~~6.89~~	~~7.09~~
CB 61	CB 62	24	27.00	0.19%	Reinforced Concrete Pipe	7.65	7.70
CB 60	CB 61	24	302.28	0.19%	Reinforced Concrete Pipe	7.07	7.65
CB 59	CB 60	36	27.00	0.11%	Reinforced Concrete Pipe	7.04	7.07
CB 53	CB 59	36	144.03	0.12%	Reinforced Concrete Pipe	6.87	7.04
CB 54	CB 58	18	27.00	0.59%	RCP	7.21	7.37
CB 53	CB 57	18	27.02	2.15%	RCP	6.87	7.45
CB 55	CB 56	24	27.00	0.19%	Reinforced Concrete Pipe	7.38	7.43
CB 54	CB 55	24	83.74	0.20%	Reinforced Concrete Pipe	7.21	7.38
CB 53	CB 54	30	261.39	0.13%	Reinforced Concrete Pipe	6.87	7.21
FES 52	CB 53	36	81.94	0.15%	Reinforced Concrete Pipe	6.75	6.87
CB 45	CB 51	18	27.00	0.30%	RCP	4.20	4.28
JB 35	CB 45	18	137.94	0.30%	RCP	3.79	4.20
CB 34	CB 44	18	27.00	0.85%	RCP	3.52	3.75
JB 33	CB 43	18	179.81	0.75%	RCP	2.97	4.31
CB 32	CB 42	18	27.00	1.93%	RCP	3.73	4.25
CB 31	CB 41	18	27.00	3.56%	RCP	2.41	3.37
CB 30	CB 40	18	27.00	0.93%	RCP	3.67	3.92
CB 49	CB 50	18	27.00	1.85%	RCP	4.60	5.10
CB 39	CB 49	18	50.02	2.06%	RCP	3.57	4.60
CB 29	CB 39	18	27.23	1.84%	RCP	3.07	3.57
~~CB 28~~	~~CB 46~~	~~18~~	~~27.00~~	~~0.41%~~	~~RCP~~	~~2.59~~	~~2.70~~
CB 47	CB 48	18	27.00	1.89%	RCP	3.00	3.51
CB 38	CB 47	18	57.38	0.98%	RCP	2.44	3.00
CB 28	CB 38	18	134.46	1.00%	RCP	1.09	2.44
CB 36	CB 37	18	27.00	0.30%	RCP	4.28	4.36
JB 35	CB 36	18	164.09	0.30%	RCP	3.79	4.28
CB 34	JB 35	24	89.85	0.30%	Reinforced Concrete Pipe	3.52	3.79
~~JB 33~~	~~CB 34~~	~~30~~	~~218.93~~	~~0.25%~~	~~Reinforced Concrete Pipe~~	~~2.97~~	~~3.52~~
CB 32	JB 33	30	97.16	0.25%	Reinforced Concrete Pipe	2.73	2.97
CB 31	CB 32	30	126.74	0.25%	Reinforced Concrete Pipe	2.41	2.73
CB 30	CB 31	36	97.50	0.25%	Reinforced Concrete Pipe	2.17	2.41
CB 29	CB 30	36	240.87	0.25%	Reinforced Concrete Pipe	1.57	2.17
CB 28	CB 29	42	192.10	0.25%	Reinforced Concrete Pipe	1.09	1.57
FES 27	CB 28	42	34.56	0.26%	Reinforced Concrete Pipe	1.00	1.09
~~CB 25~~	~~CB 26~~	~~18~~	~~26.97~~	~~1.88%~~	~~RCP~~	~~7.38~~	~~7.57~~
~~CB 14~~	~~CB 25~~	~~18~~	~~51.99~~	~~1.15%~~	~~RCP~~	~~6.79~~	~~7.39~~
CB 13	CB 24	18	27.00	1.52%	RCP	6.02	6.43
JB 11	CB 23	18	22.75	0.57%	RCP	5.68	5.81
JB 11	CB 22	18	31.79	0.82%	RCP	5.68	5.94
CB 10	CB 21	18	27.02	0.19%	RCP	5.47	5.52
CB 9	CB 20	18	27.01	0.19%	RCP	5.12	5.17
~~CB 18~~	~~CB 19~~	~~18~~	~~59.58~~	~~0.15%~~	~~RCP~~	~~7.54~~	~~7.68~~
~~CB 17~~	~~CB 18~~	~~18~~	~~117.30~~	~~0.15%~~	~~RCP~~	~~7.36~~	~~7.54~~
~~CB 16~~	~~CB 17~~	~~18~~	~~109.23~~	~~0.15%~~	~~RCP~~	~~7.19~~	~~7.36~~
~~CB 15~~	~~CB 16~~	~~24~~	~~151.99~~	~~0.20%~~	~~Reinforced Concrete Pipe~~	~~6.89~~	~~7.19~~
~~CB 14~~	~~CB 15~~	~~24~~	~~95.14~~	~~0.20%~~	~~Reinforced Concrete Pipe~~	~~6.79~~	~~6.89~~
~~CB 13~~	~~CB 14~~	~~30~~	~~342.26~~	~~0.20%~~	~~Reinforced Concrete Pipe~~	~~6.02~~	~~6.79~~
CB 12	CB 13	30	107.91	0.23%	Reinforced Concrete Pipe	5.77	6.02

STORM SYSTEM DATA

DOWNSTREAM STRUCTURE	UPSTREAM STRUCTURE	SIZE	LENGTH	SLOPE	MATERIAL	DOWNSTREAM INVERT	UPSTREAM INVERT
JB 11	CB 12	30	49.04	0.18%	Reinforced Concrete Pipe	5.68	5.77
CB 10	JB 11	36	142.23	0.15%	Reinforced Concrete Pipe	5.47	5.68
CB 9	CB 10	42	258.26	0.14%	Reinforced Concrete Pipe	5.12	5.47
FES 8	CB 9	42	74.62	0.16%	Reinforced Concrete Pipe	5.00	5.12
CB 2	CB 6	18	22.32	3.49%	RCP	2.12	2.90
CB 3	CB 7	18	21.95	0.59%	RCP	2.81	2.94
CB 4	CB 5	18	21.93	0.23%	RCP	3.20	3.25
CB 3	CB 4	18	128.90	0.30%	RCP	2.81	3.20
CB 2	CB 3	24	230.11	0.30%	Reinforced Concrete Pipe	2.12	2.81
FES 1	CB 2	36	40.99	0.29%	Reinforced Concrete Pipe	2.00	2.12
DOUBLE CULVERT		54	65.98	1.71%	Reinforced Concrete Pipe	-0.19	0.94
DOUBLE CULVERT		54	65.98	1.71%	Reinforced Concrete Pipe	-0.19	0.94

- STRIKE THROUGH DENOTES STORM PIPE NOT TO BE INSTALLED AS A PART OF BEV PHASE 1

CONSTRUCTION SPECIFICATION

1. EXCAVATE BELOW CHANNEL OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIPRAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED.

2. PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A MINIMUM OF 1.0'.

3. EXERCISE CARE IN RIPRAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC.

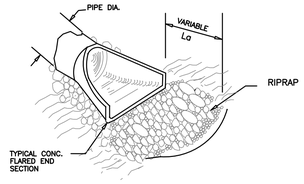
4. PLACE RIPRAP ON ZERO GRADE – TOP OF RIPRAP TO BE LEVEL WITH EXISTING OUTLET – NO OVERFALL AT ENDS.

5. RIPRAP TO BE HARD, ANGULAR, WELL GRADED CLASS B EROSION CONTROL STONE.

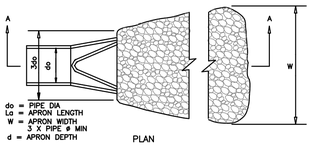
6. IMMEDIATELY AFTER CONSTRUCTION STABILIZED ALL DISTURBED AREAS WITH VEGETATION AS SHOWN IN VEGETATIVE PLAN.

MAINTENANCE

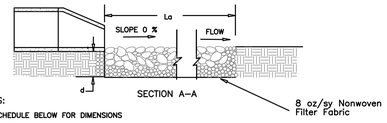
INSPECT RIP RAP DISSIPATERS WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



ISOMETRIC VIEW



PLAN



SECTION A–A

NOTES:

SEE SCHEDULE BELOW FOR DIMENSIONS

1. Lo is the length of the riprap apron.

2. d = 1.5 times the maximum stone diameter but not less than 6"

3. A filter blanket (filter fabric) shall be installed between the riprap and soil foundation.

ENERGY DISSIPATOR SCHEDULE

ENERGY DISSIPATOR NO.	PIPE DIAMETER (in)	APRON THICKNESS (in)	Lo (ft)	WIDTH (ft)	3do	RIPRAP SIZE
BMP 5 OUTLET	18	18	10	10	5	CLASS B
BMP 6 OUTLET	18	24	15	17	5	CLASS 1
BMP 7 OUTLET	18	24	10	12	5	CLASS 1
BMP 8 OUTLET	18	24	10	12	5	CLASS 1
FES 1	30	24	16	19	8	CLASS 1
FES 8	(2) 30	24	18	21	16	CLASS 1
FES 27	(2) 30	24	18	21	16	CLASS 1
FES 52	(2) 24	24	14	16	12	CLASS 1

RIP RAP ENERGY DISSIPATER

N.T.S.

STORM STRUCTURE TABLE

STRUCTURE	RIM EL	STRUCTURE IN	INVERT 1N	INVERT OUT
CB 2	6.95	CB 3 CB 6	2.12 2.12	2.12
CB 3*	6.74	CB 4 CB 7	2.81 2.81	2.81
CB 4	6.41	CB 5	3.20	3.20
CB 5	6.46			3.25
CB 6	6.90			2.90
CB 7*	6.74			2.94
CB 9*	10.41	CB 10 CB 20	5.12 5.12	5.12
CB 10	10.47	JB 11 CB 21	5.47 5.47	5.47
CB 12	11.19	CB 13	5.77	5.77
CB 13	11.93	CB 14 CB 24	6.02 6.02	6.02
~~CB 14~~	~~12.81~~	CB 15 CB 25	6.70 6.70	~~6.70~~
~~CB 15~~	~~12.34~~	CB 16 CB 15A	6.89 6.89	~~6.89~~
~~CB 15A~~	~~12.34~~			~~7.09~~
~~CB 16~~	~~11.77~~	~~CB 17~~	~~7.19~~	~~7.19~~
~~CB 17~~	~~12.19~~	~~CB 18~~	~~7.36~~	~~7.36~~
~~CB 18~~	~~12.36~~	~~CB 19~~	~~7.54~~	~~7.54~~
~~CB 19~~	~~12.04~~			~~7.68~~
CB 20*	10.41			5.17
CB 21	10.47			5.52
CB 22	11.19			5.94
CB 23*	11.06			5.81
CB 24*	11.93			6.43
~~CB 25~~	~~12.82~~	~~CB 26~~	~~7.38~~	~~7.38~~
~~CB 26~~	~~12.82~~			~~7.57~~
CB 28*	6.70	CB 29 CB 38 CB 46	1.09 1.09 2.59	1.09
CB 29	8.02	CB 30 CB 39	1.57 3.07	1.57
CB 30	8.24	CB 31 CB 40	2.17 3.67	2.17
CB 31*	7.87	CB 32 CB 41	2.41 2.41	2.41
CB 32	8.75	JB 33 CB 42	2.73 3.73	2.73
CB 34	7.81	JB 35 CB 44	3.52 3.52	3.52
CB 36	7.36	CB 37	4.28	4.28
CB 37	7.36			4.36
CB 38	7.15	CB 47	2.44	2.44
CB 39	8.02	CB 49	3.57	3.57
CB 40	8.24			3.92
CB 41	7.87			3.37
CB 42	8.75			4.25
~~CB 43*~~	~~9.20~~			~~4.31~~
CB 44	7.75			3.75
CB 45*	7.46	CB 51	4.20	4.20
CB 46	6.70			2.70
CB 47	7.77	CB 48	3.00	3.00
CB 48	7.77			3.51
CB 49	9.82	CB 50	4.60	4.60
CB 50	9.82			5.10
CB 51	7.46			4.28
CB 53*	11.61	CB 54 CB 57 CB 59	6.87 6.87 6.87	6.87
CB 54	11.74	CB 55 CB 58	7.21 7.21	7.21
CB 55*	11.52	CB 56	7.38	7.38
CB 56	11.52			7.43

* DENOTES A DOUBLE BOX STORM STRUCTURE

STORM DRAIN MATERIAL NOTE:

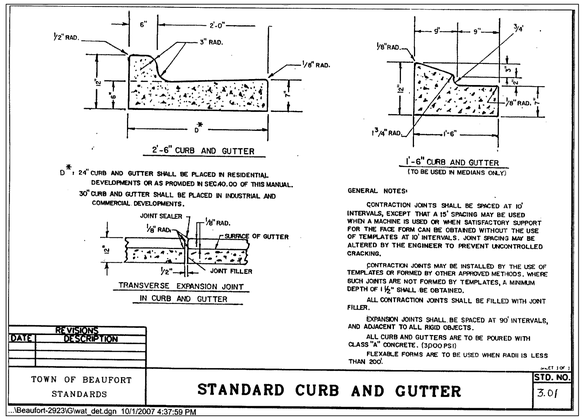
1. ADS MATERIAL FOR STORM DRAIN PIPING CAN BE USED IN LIEU OF RCP IF REQUEST IS SUBMITTED AND THEN APPROVED BY THE ENGINEER.

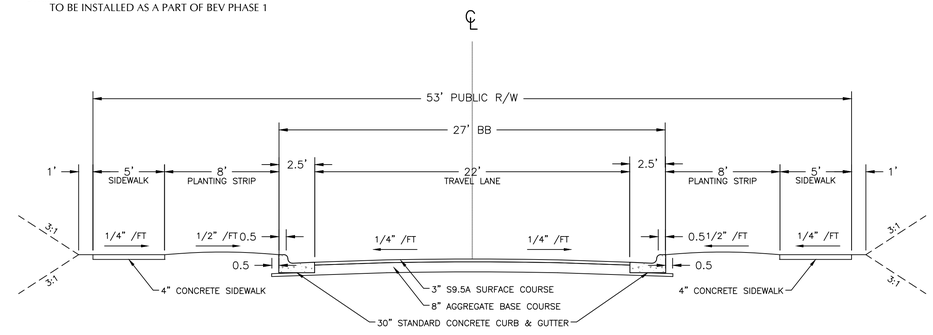
STORM STRUCTURE TABLE

STRUCTURE	RIM EL	STRUCTURE IN	INVERT 1N	INVERT OUT
CB 57	11.61			7.45
CB 58	11.74			7.37
CB 59	12.31	CB 60	7.04	7.04
CB 60	12.31	CB 61	7.07	7.07
CB 61*	11.60	CB 62	7.65	7.65
CB 62*	11.60			7.70
E-DI 95	9.56			6.68
E-FES 94	8.10	E-DI 95	5.73	
FES 1	4.95	CB 2	2.00	
FES 8	9.09	CB 9	5.00	
FES 27	5.09	CB 28	1.00	
FES 52	10.27	CB 53	6.75	
JB 11	10.75	CB 12 CB 22 CB 23	5.68 5.68 5.68	5.68
JB 33	9.21	CB 34 CB 43	2.97 2.97	2.97
JB 35	7.52	CB 36 CB 45	3.79 3.79	3.79

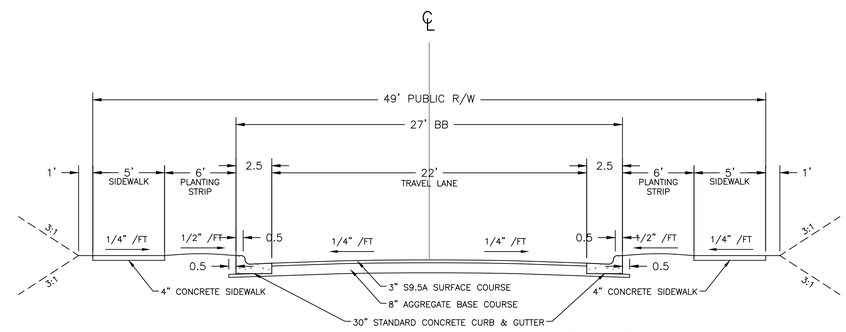
* DENOTES A DOUBLE BOX STORM STRUCTURE

- STRIKE THROUGH DENOTES STRUCTURE NOT TO BE INSTALLED AS A PART OF BEV PHASE 1





53' RIGHT OF WAY



49' RIGHT OF WAY

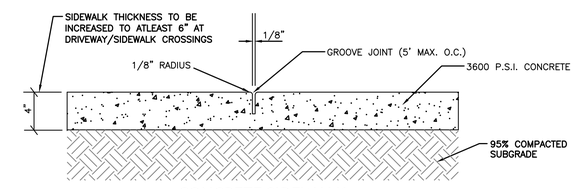
ROAD CROSS SECTIONS

N.T.S.

ROADWAY CONSTRUCTION NOTES:

1. ONLY LAY 1.5" LAYER OF ASPHALT DURING CONSTRUCTION AND UPON SUBSTANTIAL COMPLETION OR WHEN ACCESS IS DETERMINED FOR HEAVY TRAFFIC ADD THE ADDITIONAL 1.5" LAYER.

2. IN ADVANCE OF ALL PAVING AND SIDEWALK POURS, PUBLIC WORKS SHALL BE NOTIFIED FOR A SITE INSPECTION AND ALL ROADWAYS WILL HAVE A PROOF ROLL, WITH ENGINEER REPORTS TO COVER DEPTHS OF STONE AND COMPACTION DENSITY.



CONCRETE SIDEWALK

N.T.S.

GENERAL NOTES:
A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK ABUTS ANY CURB & GUTTER AND ANY RIGID STRUCTURES. IN SIDEWALKS & PLAZA AREAS EXPANSION JOINTS ARE REQUIRED AT NO GREATER THAN 30' INTERVALS CONCRETE SHALL BE 3600 PSI. IN 28 DAYS.

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 39113 ENGINEER JOSEPH S. BOYD
9-29-2020

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	7-6-16	JSB
2	REVISED PER BMP NUMBER CHANGE & SD UPDATES	8-1-16	JSB
3	STORM DRAIN & GRADING UPDATES	9-29-19	JSB

Designer JSB	Scale NOTED
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

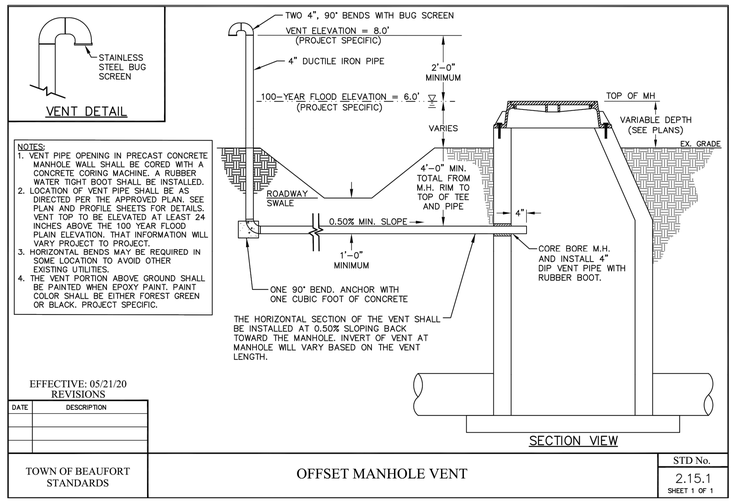
BEAUFORT EAST VILLAGE PHASE 1
IMPROVEMENTS WITHIN DRAINAGE AREA #7
Beaufort Carteret County North Carolina

ROADWAY & STORM DRAIN DETAILS

WithersRavenel
Engineers | Planners | Surveyors
1410 Commonwealth Drive, Suite 101 | Wilmington, NC 28403 | t: 910.256.9277 | license #: C-0832 | www.withersravenel.com

Sheet No.
D-1

K:\JOB\08-09770\080976.20-Beaufort East Village Ph 1\CAD\CONSTRUCTION SHEETS.dwg- Tuesday, September 29, 2020 10:33:00 PM - BOYD, JOSEPH



NOTES:
1. VENT PIPE OPENING IN PRECAST CONCRETE MANHOLE WALL SHALL BE CORED WITH A CONCRETE CORING MACHINE. A RUBBER WATER TIGHT BOOT SHALL BE INSTALLED.
2. LOCATION OF VENT PIPE SHALL BE AS DIRECTED PER THE APPROVED PLAN. SEE PLAN AND PROFILE SHEETS FOR DETAILS. VENT TOP TO BE ELEVATED AT LEAST 24 INCHES ABOVE THE 100 YEAR FLOOD PLAIN ELEVATION. THAT INFORMATION WILL VARY PROJECT TO PROJECT.
3. HORIZONTAL BENDS MAY BE REQUIRED IN SOME LOCATION TO AVOID OTHER EXISTING UTILITIES.
4. THE VENT PORTION ABOVE GROUND SHALL BE PAINTED WHEN EPOXY PAINT. PAINT COLOR SHALL BE EITHER FOREST GREEN OR BLACK. PROJECT SPECIFIC.

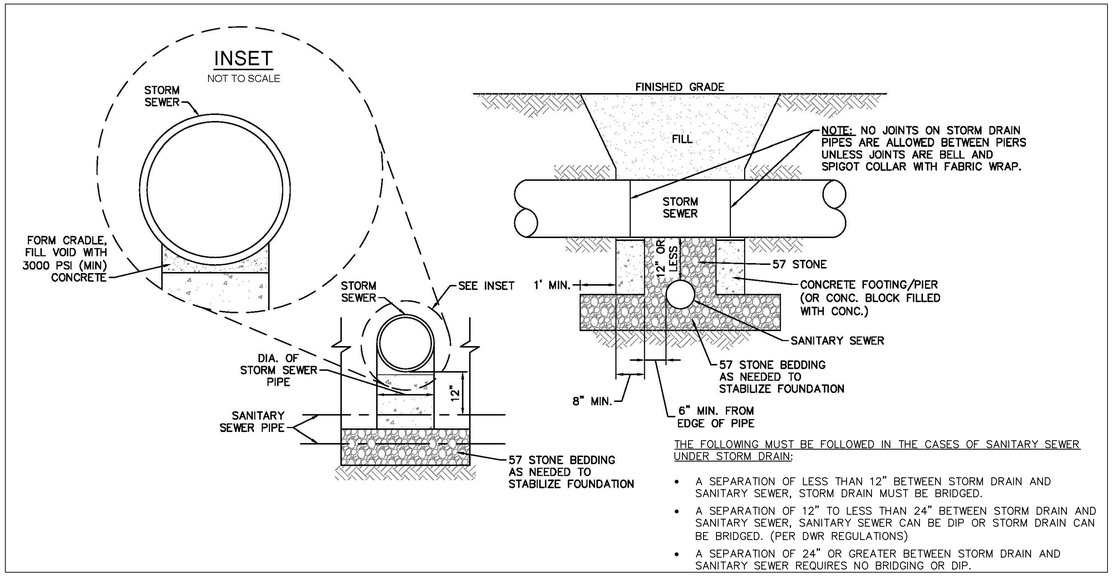
EFFECTIVE: 05/21/20
REVISIONS

DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

OFFSET MANHOLE VENT

STD No. 2.15.1
SHEET 1 OF 1

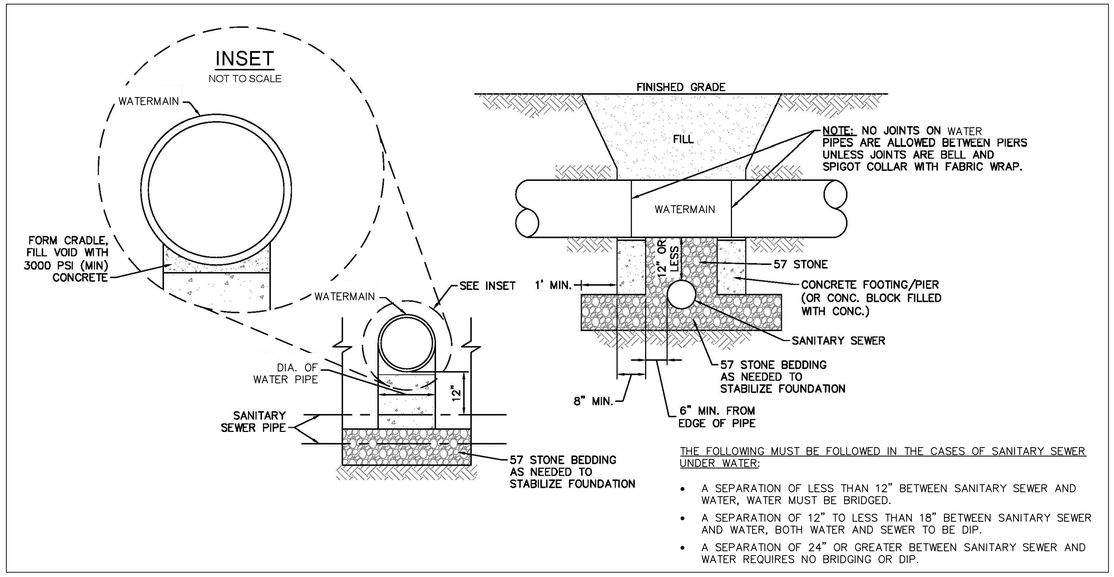


THE FOLLOWING MUST BE FOLLOWED IN THE CASES OF SANITARY SEWER UNDER STORM DRAIN;

- A SEPARATION OF LESS THAN 12" BETWEEN STORM DRAIN AND SANITARY SEWER, STORM DRAIN MUST BE BRIDGED.
- A SEPARATION OF 12" TO LESS THAN 24" BETWEEN STORM DRAIN AND SANITARY SEWER, SANITARY SEWER CAN BE DIP OR STORM DRAIN CAN BE BRIDGED. (PER DWR REGULATIONS)
- A SEPARATION OF 24" OR GREATER BETWEEN STORM DRAIN AND SANITARY SEWER REQUIRES NO BRIDGING OR DIP.

STRUCTURAL BRIDGING DETAIL FOR STORMWATER OVER SANITARY SEWER INSTALLATIONS WITH LESS THAN 12" SEPARATION

N.T.S.



THE FOLLOWING MUST BE FOLLOWED IN THE CASES OF SANITARY SEWER UNDER WATER;

- A SEPARATION OF LESS THAN 12" BETWEEN SANITARY SEWER AND WATER, WATER MUST BE BRIDGED.
- A SEPARATION OF 12" TO LESS THAN 18" BETWEEN SANITARY SEWER AND WATER, BOTH WATER AND SEWER TO BE DIP.
- A SEPARATION OF 24" OR GREATER BETWEEN SANITARY SEWER AND WATER REQUIRES NO BRIDGING OR DIP.

STRUCTURAL BRIDGING DETAIL FOR WATER OVER SANITARY SEWER INSTALLATIONS WITH LESS THAN 12" SEPARATION

N.T.S.

FINAL DESIGN
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 39143 ENGINEER JOSEPH S. BOYD
9-29-20

No.	Revision	Date	By
1	REVISED PER TOWN OF BEAUFORT COMMENTS	7-6-16	JSB
2	ADDED OFFSET MANHOLE VENT DETAIL	9-27-20	JSB

Designer JSB	Scale NTS
Drawn By JSB	Date 9/14/15
Checked By JJW	Job No. 02080976.20

BEAUFORT EAST VILLAGE PHASE 1
IMPROVEMENTS WITHIN DRAINAGE AREA #7
Beaufort Carteret County North Carolina

WATER, SEWER & STORM DETAILS

WithersRavenel
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Sheet No. D-5

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EROSION CONTROL NOTES

1. ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL STANDARDS AND PRACTICES PRESCRIBED BY THE STATE OF NORTH CAROLINA, WAKE COUNTY AND THE TOWN OF KNIGHTDALE. WHERE STANDARDS AND PRACTICES CONFLICT, THE MORE STRINGENT SHALL APPLY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES SHOWN ON THE APPROVED PLAN.
3. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN 7 WORKING DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PERMANENT SEEDING AND MULCHING SHALL BE PERFORMED FOLLOWING COMPLETION OF THE INSTALLATION OF THE PUMP STATION AND APPURTENANCES.
4. SLOPES SHALL BE NO STEEPER THAN 2:1 FOR VEGETATIVE COVER.
5. THE CONTRACTOR SHALL FAITHFULLY MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO ENSURE THAT NO SILT LEAVES THE PROJECT SITE AND ENTERS ANY NATURAL STREAM OR WATERWAY.
6. RECEIVING WATERCOURSE: ATLANTIC OCEAN.
7. 100 YEAR FLOOD ELEVATION AT PUMP STATION = 6.0'
8. TOTAL DISTURBED AREA FOR PUMP STATION AND ACCESS ROAD IS APPROXIMATELY 0.20 ACRES.

CONSTRUCTION SEQUENCE

1. OBTAIN COPY OF LAND DISTURBING PERMIT FROM WAKE COUNTY ENVIRONMENT SERVICES.
2. PRIOR TO THE START OF CONSTRUCTION, INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES.
3. OBTAIN A CERTIFICATE OF COMPLIANCE THROUGH ON-SITE INSPECTION BY WAKE COUNTY ENVIRONMENT SERVICES.
4. PROCEED WITH INSTALLATION OF PUMP STATION.
5. AT THE END OF EACH WORKDAY, BACKFILL ALL TRENCHES AND TOP WITH NOT LESS THAN 8-INCHES CABC. BROOM SWEEP ASPHALT PAVEMENT TO REMOVE SOIL RESIDUE. EXCESS SOIL WILL BE DISPOSED OF OFF SITE IN A LEGAL MANNER.
6. CLEAN CONTROL MEASURES AFTER EACH RAINFALL EVENT.
7. REMOVE SEDIMENT FROM CURB INLET SEDIMENT FILTERS, CHECK DAMS AND FROM BEHIND SILT FENCES WHEN DIRECTED BY INSPECTOR, OWNER, OR ENGINEER.
8. STABILIZE SITE WITHIN IN 7 DAYS ON PERIMETER AREAS AND SLOPES GREATER THAN 3:1 AND WITHIN 14 DAYS ON OTHER AREAS, SEE SHEET 28 FOR DETAILED TIME TABLE,
9. PROVIDE SEEDING AND MULCHING AT THE END OF EACH WORK DAY WHERE INDIVIDUAL LOTS ARE DISTURBED FOR THE RECONNECTION OF WATER AND SEWER SERVICES.
10. MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
11. REQUEST FINAL APPROVAL OF GROUND COVER BY WAKE COUNTY ENVIRONMENT SERVICES INSPECTOR.
12. WHEN AUTHORIZED BY WAKE COUNTY ENVIRONMENT SERVICES INSPECTOR, REMOVE EROSION AND SEDIMENTATION CONTROL MEASURES AND STABILIZE AREAS FORMERLY OCCUPIED BY THESE MEASURES.

RELATION OF WATER MAINS AND 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 THE 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.

GENERAL NOTES

1. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL PERMIT APPROVALS AND EASEMENTS ON THE JOB SITE AT ALL TIMES.
2. CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL CONFORM TO THE STATE OF NORTH CAROLINA AND THE TOWN OF BEAUFORT STANDARDS.
3. ALL SHOP DRAWINGS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND TOWN BEFORE EQUIPMENT IS ORDERED.
4. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER OF ANY CONFLICTS, ERRORS, AMBIGUITIES, OR DISCREPANCIES THAT ARE DISCOVERS IN THE CONTRACT DOCUMENTS AND SHALL ABIDE TO THE SOLUTION PROVIDED BY THE ENGINEER AND THE TOWN.
5. ALL KNOWN UTILITIES HAVE BEEN LOCATED FROM THE INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE BOTH HORIZONTALLY AND VERTICALLY ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION (ONE CALL CENTER 811 OR 1-800-632-4949). ALL COSTS ASSOCIATED WITH ANY DAMAGE TO KNOWN OR UNKNOWN EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S FAILURE TO ADEQUATELY PROTECT THE EXISTING UTILITIES DURING CONSTRUCTION SHALL BE BORNE SOLELY BY THE CONTRACTOR.
6. CONTRACTOR SHALL MAKE EVERY EFFORT TO SAVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE SHALL REPLACE PROPERTY IRONS, MONUMENTS, AND OTHER PERMANENT POINTS OF REFERENCE DESTROYED BY THE CONTRACTOR.
7. CONTRACTOR SHALL CLEAR AND GRUB ALL UTILITY EASEMENTS, AS DIRECTED BY THE OWNER, TO INSTALL NEW UTILITIES. ON ROADWAY RIGHT-OF-WAYS, THE CONTRACTOR SHALL ONLY REMOVE THE TREES MARKED ON THE PLANS AND SHALL MAKE EVERY EFFORT DURING CONSTRUCTION TO PROTECT THE TREES THAT WILL NOT BE REMOVED.
8. EXISTING BUILDING LOCATIONS ARE APPROXIMATE AND SHOWN FOR INFORMATION ONLY.
9. CONTRACTOR SHALL REPAIR ALL DRIVEWAYS, PAVED OR UNPAVED, TO EXISTING OR BETTER CONDITIONS IF DISTURBED DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ALL NECESSARY EROSION CONTROL MEASURES WHETHER OR NOT SHOWN ON THE PLANS TO PROTECT ADJACENT CREEKS, RIVERS, ROADWAYS, ETC. FROM SILT AND EROSION.
11. DISRUPTION TO ANY UTILITY SHALL BE COORDINATED WITH THE AFFECTED PROPERTY OWNER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES IF REQUIRED DURING INSTALLATION OF NEW WORK. THERE WILL BE NO ADDITIONAL OR SEPARATE PAY ITEM FOR THIS WORK UNLESS SPECIFICALLY CALLED OUT IN THE BID FORM. ANY RELOCATION OF EXISTING UTILITIES MUST BE COORDINATED WITH THE AFFECTED UTILITY COMPANY.
13. THE CONTRACTOR SHALL SUPPORT ALL UTILITY POLES AS NECESSARY. THE CONTRACTOR SHALL COORDINATE UTILITY POLE SUPPORT WITH THE APPROPRIATE UTILITY COMPANIES.
14. CONTRACTOR SHALL RESTORE/REPLACE ALL SIGNS, MAILBOXES, ETC. ENCOUNTERED DURING CONSTRUCTION TO ORIGINAL CONDITION.
15. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO THE EXISTING GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
16. ALL DRIVEWAYS SHALL BE REPAIRED AS SOON AS CONSTRUCTION HAS PASSED. A MINIMUM OF 6" OF CABC SHALL BE USED FOR TEMPORARY REPAIR ON ASPHALT AND CONCRETE DRIVEWAYS UNTIL PERMANENT REPAIR CAN BE COMPLETED AND A MINIMUM OF 6" OF CABC SHALL BE USED AS PERMANENT REPAIR ON GRAVEL DRIVEWAYS.
17. CONTRACTOR SHALL REPLACE WITH NEW ALL DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. ALL PIPE/CULVERTS SHALL MEET THE REQUIREMENTS OF NCDOT AND OR THE TOWN OF BEAUFORT.
18. ROADS ARE ASPHALT UNLESS OTHERWISE NOTED.
19. ALL ROADWAY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS. ALL DITCHES SHALL BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
20. THE CONTRACTOR SHALL REMOVE EXISTING FENCING AS REQUIRED TO INSTALL NEW UTILITIES AND REPLACE WITH NEW FENCING OF THE SAME TYPE. TEMPORARY FENCING SHALL BE INSTALLED AS REQUIRED TO CONTAIN LIVESTOCK DURING CONSTRUCTION.
21. ALL EXCAVATED MATERIAL SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR SHALL PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO CONTROL RUN-OFF. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.
22. ALL STREAM CROSSINGS SHALL UTILIZE CLEAN WASHED STONE. SOIL OF ANY TYPE WILL NOT BE PERMITTED IN ANY STREAM CROSSING.
23. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND SHALL INSTALL TRAFFIC SAFETY MEASURES IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
24. SITE SHALL BE STABILIZED, SEEDED AND MULCHED, AND PAVED AS INDICATED IN THE EROSION CONTROL NOTES PRIOR TO FINAL INSPECTION.
25. POSITIVE DRAINAGE SHALL BE PROVIDED FOR THE CONSTRUCTION AREA THROUGHOUT THE CONSTRUCTION PERIOD.
26. CONTRACTOR SHALL PROVIDE PROPER OIL POLLUTION PREVENTION MEASURES TO MINIMIZE THE IMPACT OF DIESEL FUEL TO THE ENVIRONMENT. MEASURES SHALL BE IN ACCORDANCE WITH STATE AND LOCAL LAWS.
27. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXCESS SOIL FROM THE JOB SITE AND SHALL BE REQUIRED TO OBTAIN PROPER PERMITS FROM THE STATE.
28. ALL GRID COORDINATES SHOWN ON THE DRAWINGS ARE BASED UPON HORIZONTAL GROUND DISTANCES FROM NCGS MONUMENTS. NO SCALE FACTORS HAVE BEEN USED. THESE COORDINATES SHOULD BE USED FOR CONSTRUCTION PURPOSED ONLY.
29. INSTALL FORCE MAIN AT THE ELEVATIONS SHOWN ON THE DRAWINGS.
30. ANTI-SEEP COLLARS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND BE CONSTRUCTED OF CLASS B CONCRETE.
31. PROVIDE SEEDING AND MULCHING AT THE END OF EACH WORK DAY WHERE INDIVIDUAL LOTS ARE DISTURBED FOR THE RECONNECTION OF WATER AND SEWER SERVICES.
32. SURVEY IS PROVIDED BY WITHERS & RAVENEL.
33. VERTICAL DATUM ARE NGVD 1988 AND HORIZONTAL DATUM IS NAD 1983.

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 024420 ENGINEER CHRISTOPHER N. HUFF

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

PUMP STATION
GENERAL NOTES

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No.
PS-1

4.

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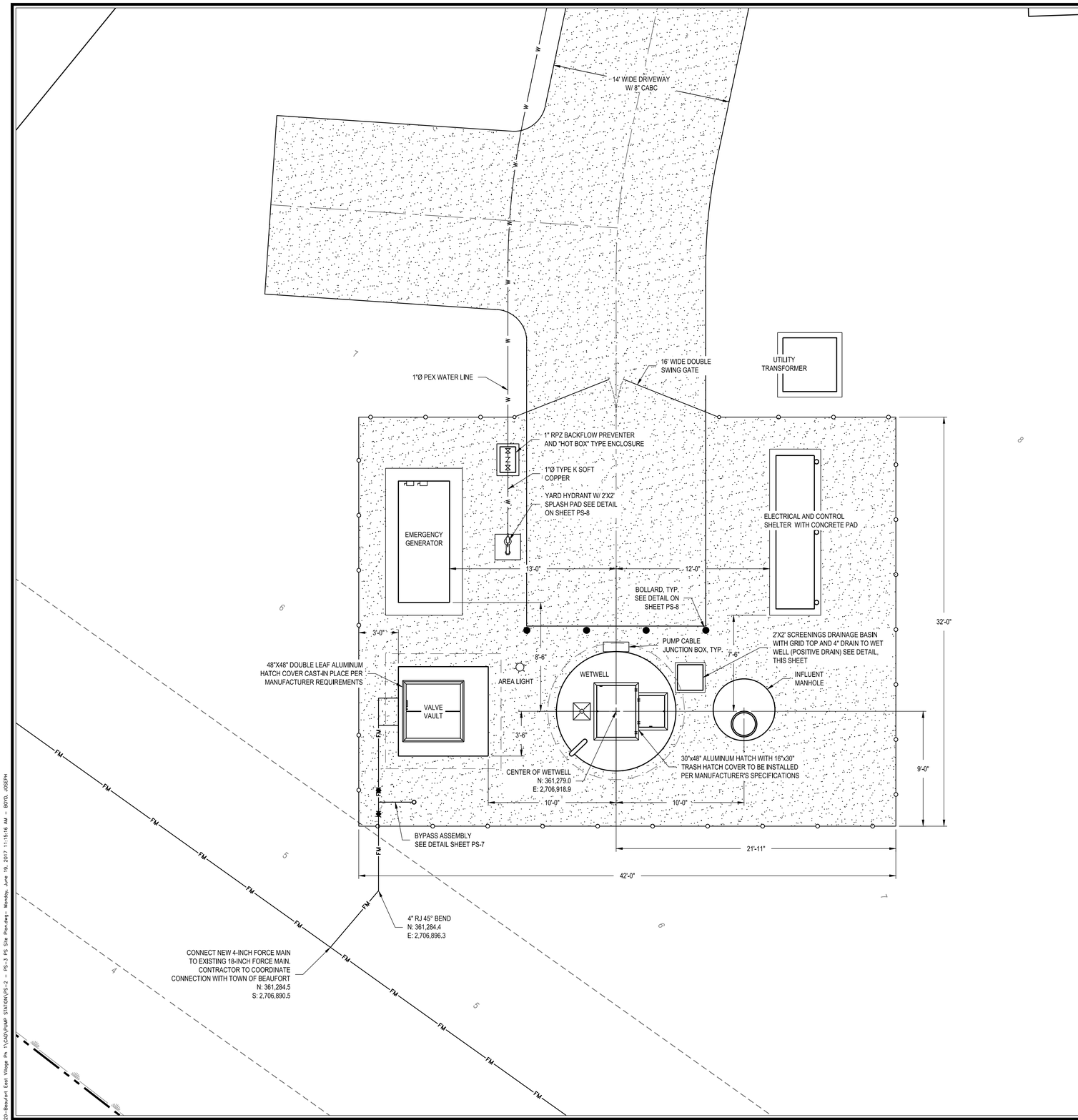

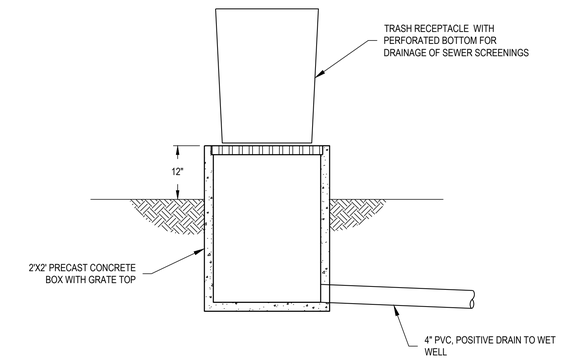

SCREENINGS DRAINAGE BASIN DETAIL

N.T.S.

NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF BEAUFORT STANDARDS AND SPECIFICATIONS.
2. PUMP STATION VERTICAL DATUM = NAVD 88

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEER 024420 CHRISTOPHER N. HUFF

SEAL NOT VALID UNLESS SIGNED AND DATED

GRAPHIC SCALE
4 0 2 4 8
1 inch = 4 ft.

No.	Revision	Date	By

Designer	CNH	Scale	AS SHOWN
Drawn By	CNH	Date	JUNE 2016
Checked By	JJW	Job No.	2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

SITE PLAN

WithersRavenel
Engineers | Planners | Surveyors
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Sheet No.
PS-2

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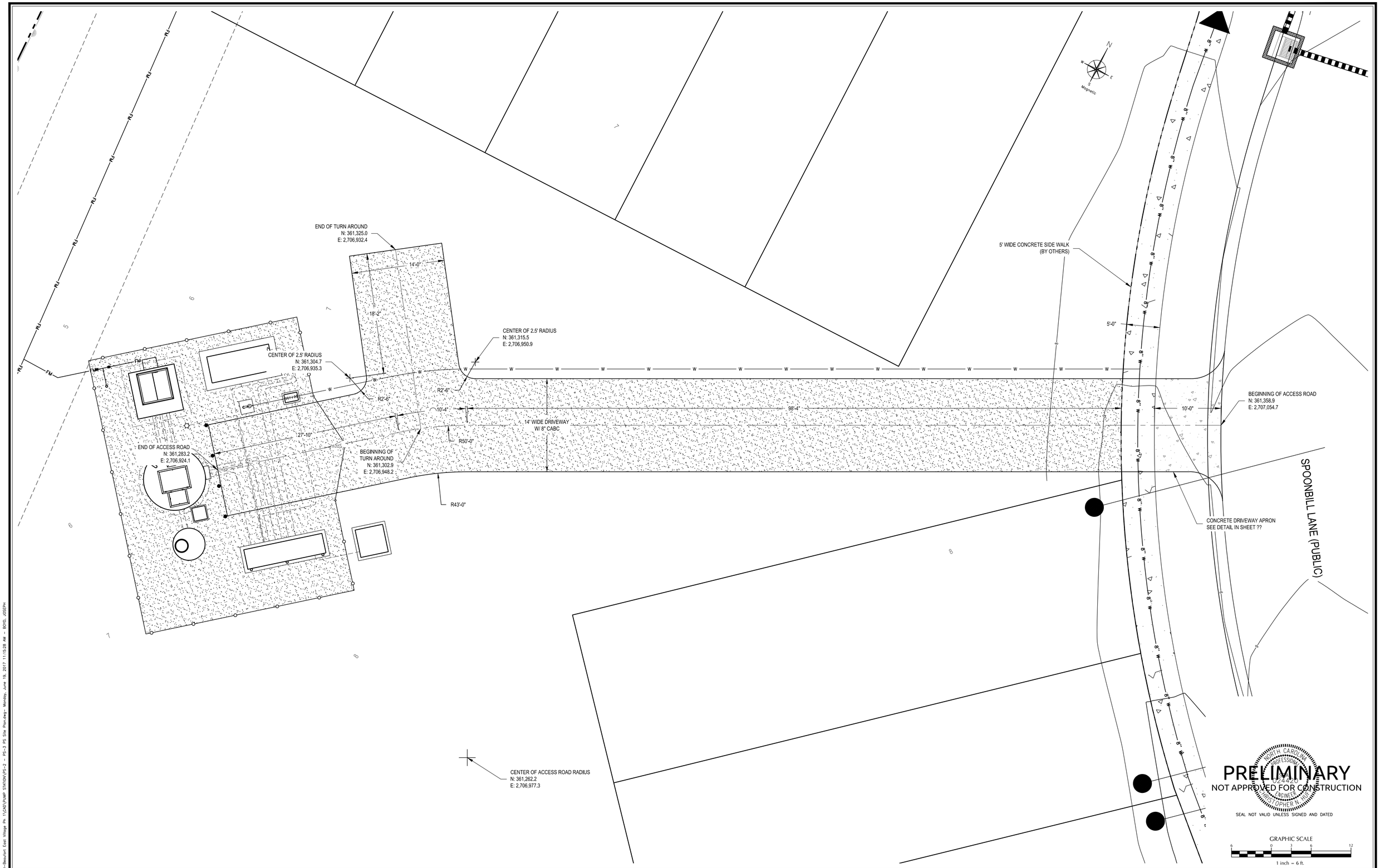

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

ACCESS ROAD LAYOUT

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Sheet No.
PS-3

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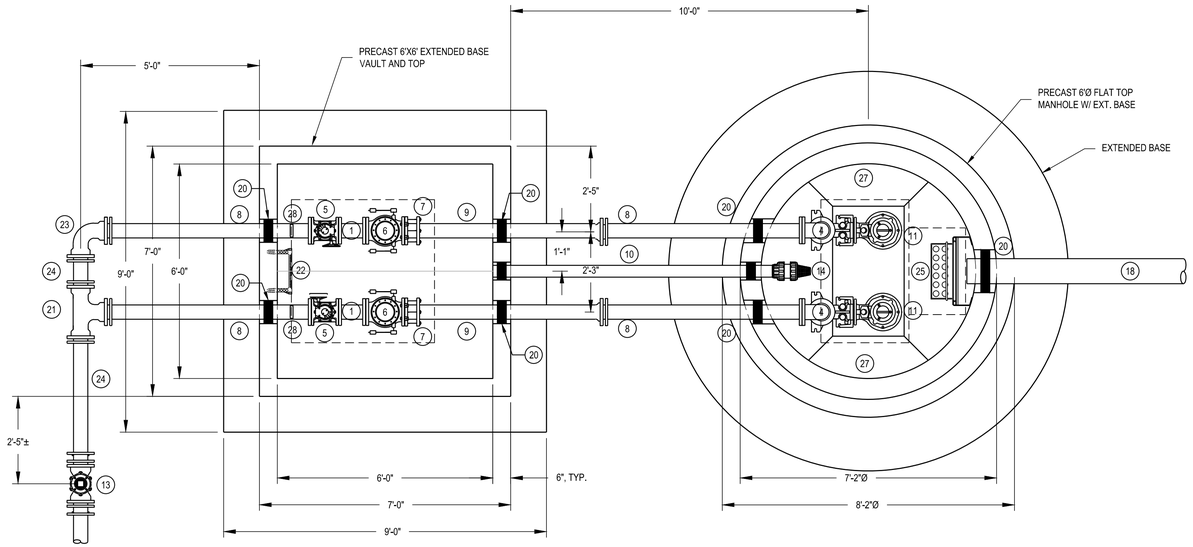
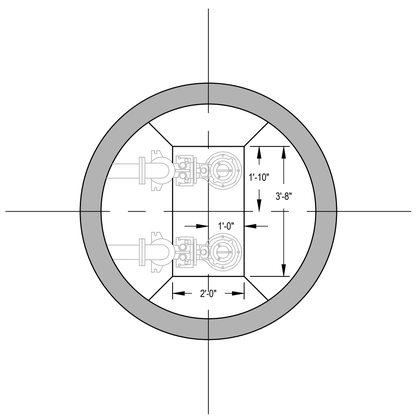


PUMP STATION PLAN

N.T.S.



FILLET DETAIL

N.T.S.

KEY NOTES

1. 4" FL DIP
2. 4" S.S. VENT PIPE WITH S.S INSECT SCREEN
3. 2" CONDUIT WITH ABOVE GROUND JUNCTION BOX, TYP.
4. 4" FL 90° BEND
5. 4" FL PLUG VALVE W/ HANDWHEEL
6. 4" FL CHECK VALVE
7. 4" FL RESTRAINED DISMANTLING COUPLING
8. 4" FL x RJ PIPE
9. 4" RJ x PE PIPE
10. 3" DIP DRAIN LINE (SLOPE 1/4" PER FOOT)
11. SUBMERSIBLE PUMP
12. STEEL ADJUSTABLE PIPE SUPPORT
13. 4" RJ PLUG VALVE W/ VALVE NUT AND BOX
14. 3" FLAP VALVE
15. PUMP LEVEL PROBE ROD (TYP.)
16. S.S. LIFT CABLE (EACH PUMP) SEE NOTE 12
17. INTERMEDIATE GUIDE RAIL SUPPORT (EACH PUMP)
18. 8" INFLUENT SEWER
19. PIPE SUPPORT IN WETWELL (EACH PUMP)
20. LINK SEAL OR NON-SHRINK GROUT
21. 4" RJ TEE
22. STEPS
23. 4" RJ 90° BEND
24. 4" RJ PIPE
25. ALUMINUM TRASH BASKET ASSEMBLY (SEE SHEET PS-5)
26. S.S. CABLE HANGER (SEE SHEET PS-5)
27. FILLET
28. 0-100 PSI PRESSURE GAUGE, 4" DIAL W/ SHUTOFF VALVE AND SNUBBER
29. 2" SCH. 40 304 S.S GUIDE RAIL (2 RAILS PER PUMP)

NOTES:

1. SPOOL PIPE BETWEEN CHECK VALVE AND PLUG VALVE IN VALVE VAULT SHALL BE 8-INCH MIN. LENGTH TO ALLOW INSTALLATION OF BOLTS.
2. DAVIT CRANE SHALL BE THERN SERIES 5110, HAVE A MINIMUM LOAD CAPACITY OF 1,000 LBS, OR APPROVED EQUAL (NOT SHOWN ON THIS PLAN, SEE SHEET PS-5 FOR ADDITIONAL INFORMATION).
3. HATCH SAFETY NETTING SHALL BE HATCH NET AS MANUFACTURE BY SAFE APPROACH, INC. OR APPROVED EQUAL.
4. ALL HARDWARE IN WETWELL AND VALVE VAULT SHALL BE 316 STAINLESS STEEL.
5. SEE ELECTRICAL SHEETS FOR ADDITIONAL DETAILS.
6. NO UNI-FLANGE OR DRESSER COUPLING IN WET WELL.
7. ALL PIPE CONNECTIONS TO BE FLANGED PRESSURE CLASS 350 DIP UNLESS OTHERWISE NOTED.
8. PROVIDE S.S. "O" OR "D" RINGS @ 5' INTERVALS ON ALL LIFT CHAINS.
9. ALL PENETRATIONS INTO PRECAST STRUCTURES SHALL BE DONE BY CORE DRILLING AND PIPES SHALL BE SEALED WITH NON-SHRINK GROUT, LINK-SEALS OR OTHER APPROVED MEANS TO MAKE A WATER TIGHT SEAL.
10. CONTRACTOR SHALL VERIFY SIZE OF WETWELL ACCESS HATCH TO DETERMINE IF HATCH SIZE ON PLANS WILL ACCOMMODATE SELECTED PUMP AND TRASH BASKET.
11. INTERIOR OF WET WELL SHALL RECEIVE 2 COATS OF KOPPERS "SUPER SERVICE BLACK" OR A SUITABLE COAL TAR EPOXY OF AT LEAST 24-MILS THICKNESS.
12. EACH PUMP LIFT CHAIN SHALL CONSIST OF THE FOLLOWING: TWO FEET OF STAINLESS STEEL CABLE CONNECTED TO THREE FEET 5/16 IN STAINLESS STEEL CHAIN THEN BACK TO STAINLESS STEEL CABLE TO THE TOP OF THE WET WELL WITH THREE FEET EXTENDED BEYOND THE HATCH.
13. ALL PUMPS AND CONTROL PANELS SHALL BE MANUFACTURED BY FLYGT.

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024420 CHRISTOPHER N. HUE

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

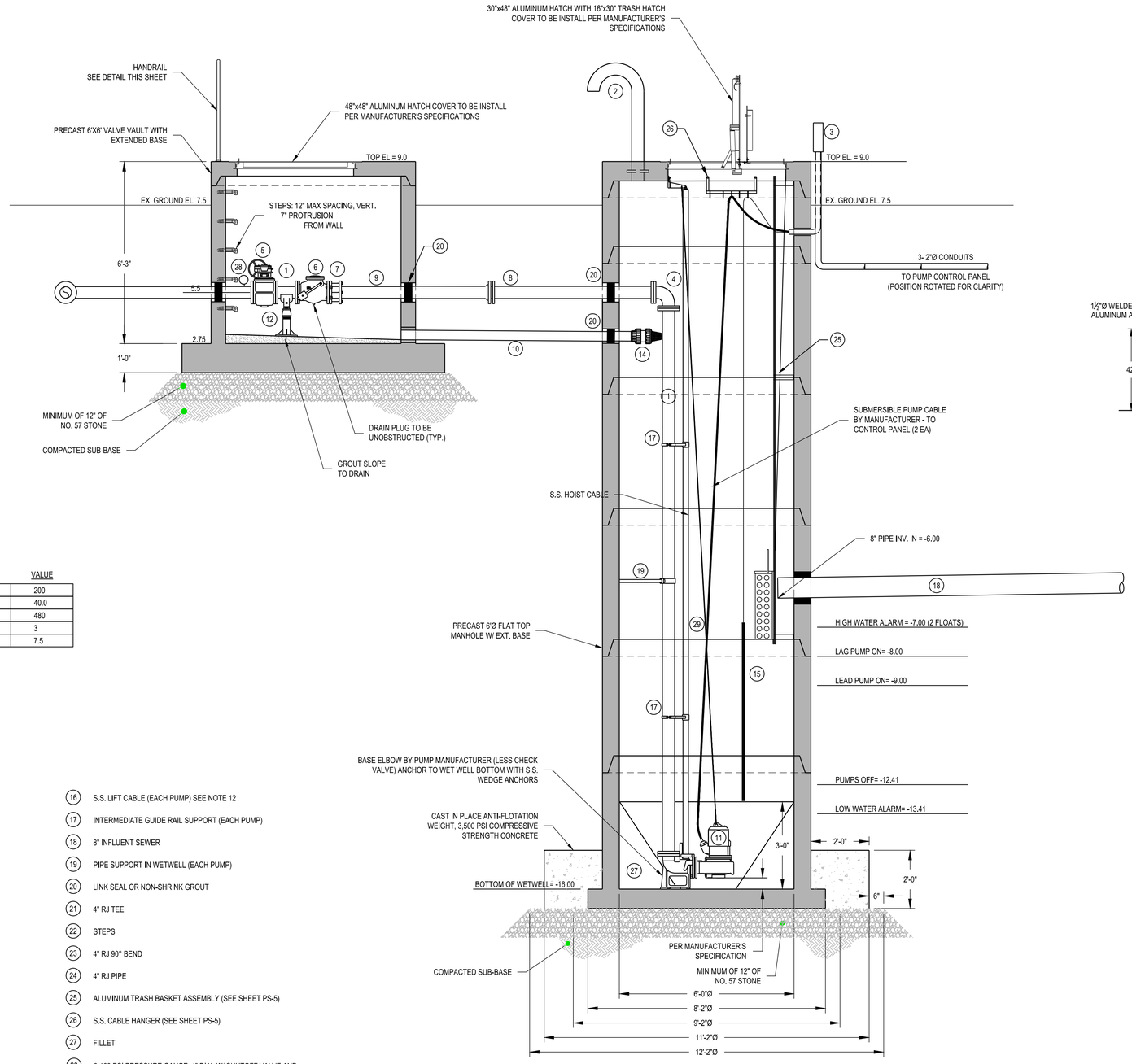
Town of Beaufort Carteret County North Carolina

PLAN DETAIL

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

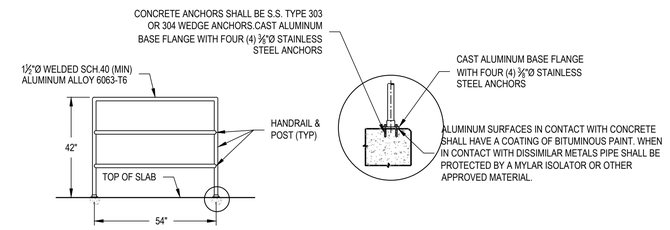
Sheet No.
PS-4

K:\080_08-0970\080976.20-Beaufort East Village Ph 1\CAD\PUMP STATION\PS-4 - PS-4 PS Plan and Section.dwg - Monday, June 19, 2017 11:15:54 AM - BOYD, JOSEPH



PUMP STATION SECTION

N.T.S.



HANDRAIL DETAIL

N.T.S.

OPERATING CONDITION

ITEM	VALUE
DESIGN FLOW, GPM	200
DESIGN HEAD (TDH), FT	40.0
VOLTAGE	480
PHASE	3
HORSEPOWER, RECOMMENDED MINIMUM	7.5

NOTE:

DUTY POINT FOR ONE PUMP RUNNING IN A DUPLEX STATION.

KEY NOTES

1. 4" FL DIP
2. 4" S.S. VENT PIPE WITH S.S INSECT SCREEN
3. 2" CONDUIT WITH ABOVE GROUND JUNCTION BOX, TYP.
4. 4" FL 90° BEND
5. 4" FL PLUG VALVE W/ HANDWHEEL
6. 4" FL CHECK VALVE
7. 4" FL RESTRAINED DISMANTLING COUPLING
8. 4" FL x RJ PIPE
9. 4" RJ x PE PIPE
10. 3" DIP DRAIN LINE (SLOPE 1/4" PER FOOT)
11. SUBMERSIBLE PUMP
12. STEEL ADJUSTABLE PIPE SUPPORT
13. 4" RJ PLUG VALVE W/ VALVE NUT AND BOX
14. 3" FLAP VALVE
15. PUMP LEVEL PROBE ROD (TYP.)
16. S.S. LIFT CABLE (EACH PUMP) SEE NOTE 12
17. INTERMEDIATE GUIDE RAIL SUPPORT (EACH PUMP)
18. 8" INFLUENT SEWER
19. PIPE SUPPORT IN WETWELL (EACH PUMP)
20. LINK SEAL OR NON-SHRINK GROUT
21. 4" RJ TEE
22. STEPS
23. 4" RJ 90° BEND
24. 4" RJ PIPE
25. ALUMINUM TRASH BASKET ASSEMBLY (SEE SHEET PS-5)
26. S.S. CABLE HANGER (SEE SHEET PS-5)
27. FILLET
28. 0-100 PSI PRESSURE GAUGE, 4" DIAL W/ SHUTOFF VALVE AND SNUBBER
29. 2" SCH. 40 304 S.S GUIDE RAIL (2 RAILS PER PUMP)

NOTES:

1. SPOOL PIPE BETWEEN CHECK VALVE AND PLUG VALVE IN VALVE VAULT SHALL BE 8-INCH MIN. LENGTH TO ALLOW INSTALLATION OF BOLTS.
2. DAVIT CRANE SHALL BE THERN SERIES 5110, HAVE A MINIMUM LOAD CAPACITY OF 1,000 LBS, OR APPROVED EQUAL (NOT SHOWN ON THIS PLAN, SEE SHEET PS-5 FOR ADDITIONAL INFORMATION).
3. HATCH SAFETY NETTING SHALL BE HATCH NET AS MANUFACTURE BY SAFE APPROACH, INC. OR APPROVED EQUAL.
4. ALL HARDWARE IN WETWELL AND VALVE VAULT SHALL BE 316 STAINLESS STEEL.
5. SEE ELECTRICAL SHEETS FOR ADDITIONAL DETAILS.
6. NO UNI-FLANGE OR DRESSER COUPLING IN WET WELL.
7. ALL PIPE CONNECTIONS TO BE FLANGED PRESSURE CLASS 350 DIP UNLESS OTHERWISE NOTED.
8. PROVIDE S.S. "O" OR "D" RINGS @ 5' INTERVALS ON ALL LIFT CHAINS.
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13. ALL PUMPS AND CONTROL PANELS SHALL BE MANUFACTURED BY FLYGT.

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024499 CHRISTOPHER W. HAFF

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

SECTION DETAIL

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No. PS-5

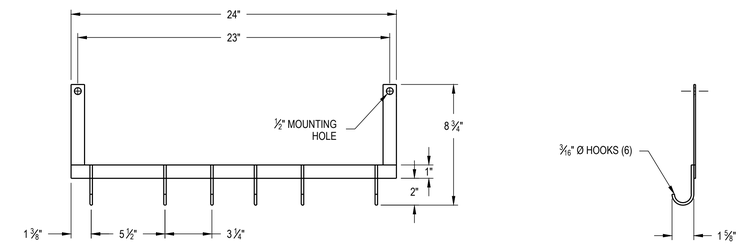
K:\081Off-0970\080976.20-Beaufort East Village Ph 1\CAD\Pump Station\PS-4 - PS-6 PS Plan and Section.dwg - Monday, June 19, 2017 11:16:01 AM - BRYO, JOSEPH

NOTES:

1. THE TRASH BASKET SYSTEM SHALL BE MODEL B1A AS MANUFACTURED BY HALLIDAY PRODUCTS, INC. OF ORLANDO, FLORIDA OR EQUAL.
2. THE TRASH BASKET SHALL BE OF THE PERFORATED SCREEN STYLE BASKET, HAVING 2" HOLES ON 3" CENTERS.
3. THE BASKET SHALL BE OF .080" ALUMINUM WITH ALUMINUM TRACKING ANGLES AS PART OF THE BASKET FRAME.
4. THE GUIDE RAILS SHALL BE EXTRUDED ALUMINUM CHANNELS SIZED TO FACILITATE EASY OPERATION OF THE BASKET.
5. AN ALUMINUM BASKET STOP SHALL BE SUPPLIED AT THE BOTTOM OF GUIDE RAIL ASSEMBLY.
6. BASKET HOIST CABLE TO BE 1/4" S.S. AND PERMANENTLY ATTACHED TO THE BASKET.

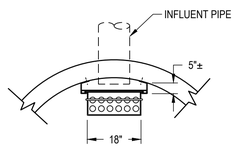
NOTES:

1. CABLE HANGER TO BE 316 STAINLESS STEEL.
2. CABLE HANGER SHALL BE SUPPLIED WITH 6 HOOKS.
3. CABLE HANGER CAN BE EITHER WALL OR ACCESS FRAME MOUNTED.

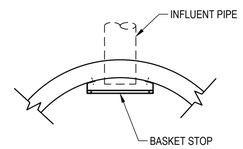


CABLE HANGER

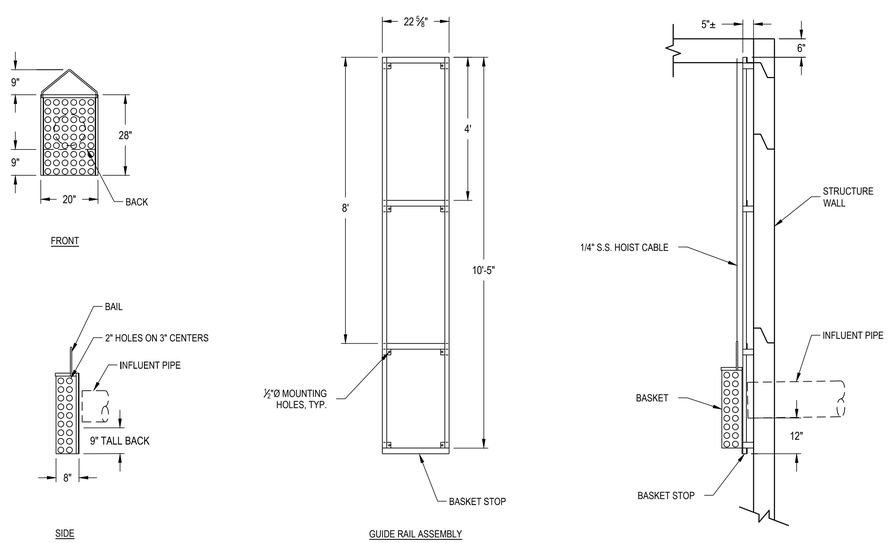
N.T.S.



ASSEMBLED SECTION



WALL SECTION



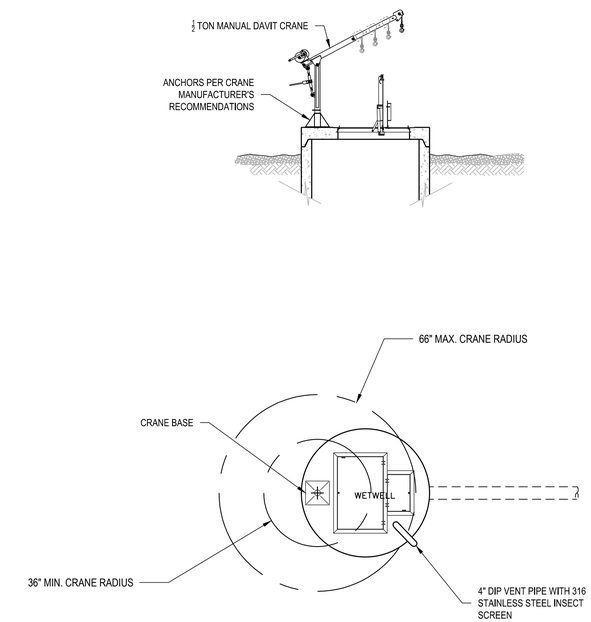
FRONT

SIDE

GUIDE RAIL ASSEMBLY

TRASH BASKET ASSEMBLY

N.T.S.



DAVIT CRANE

N.T.S.

PRELIMINARY

NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEER 024420 CHRISTOPHER N. HUFF

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer	CNH	Scale	AS SHOWN
Drawn By	CNH	Date	JUNE 2016
Checked By	JJW	Job No.	2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

DETAILS

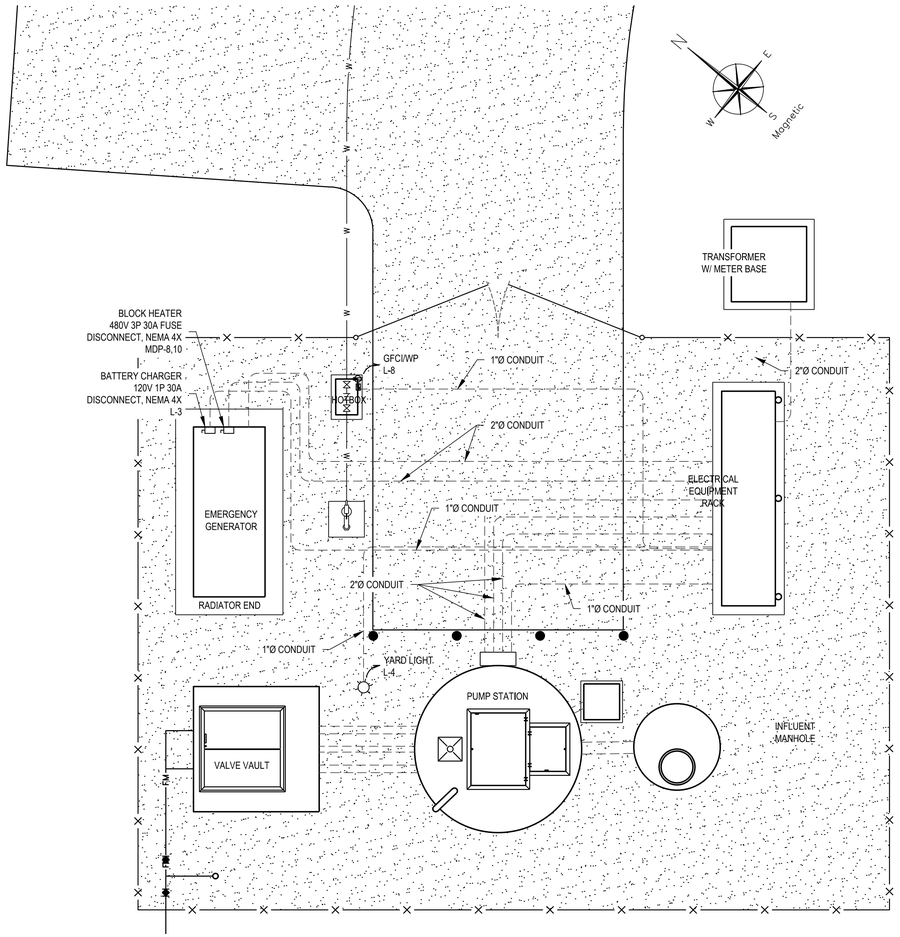
WithersRavenel

Engineers | Planners | Surveyors

115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

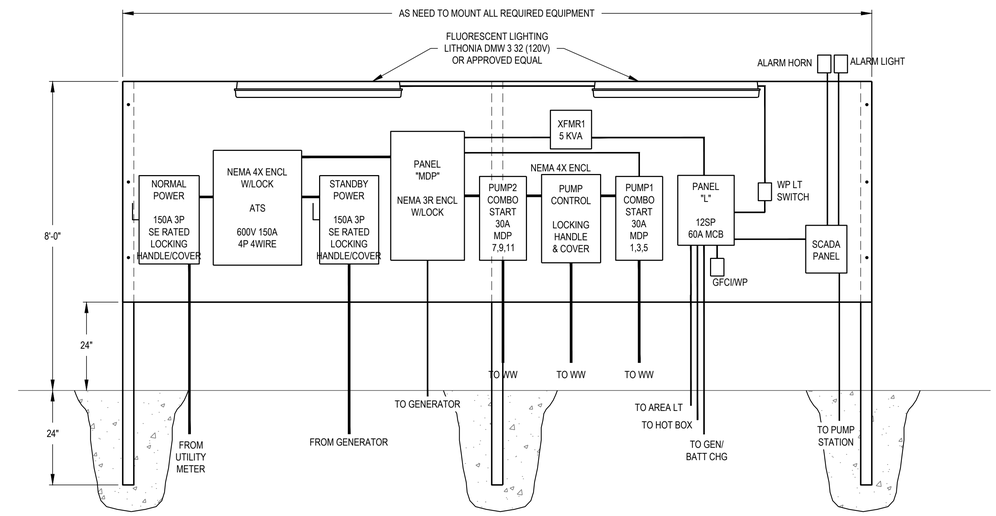
Sheet No.

PS-6



SITE ELECTRICAL LAYOUT

NOT TO SCALE

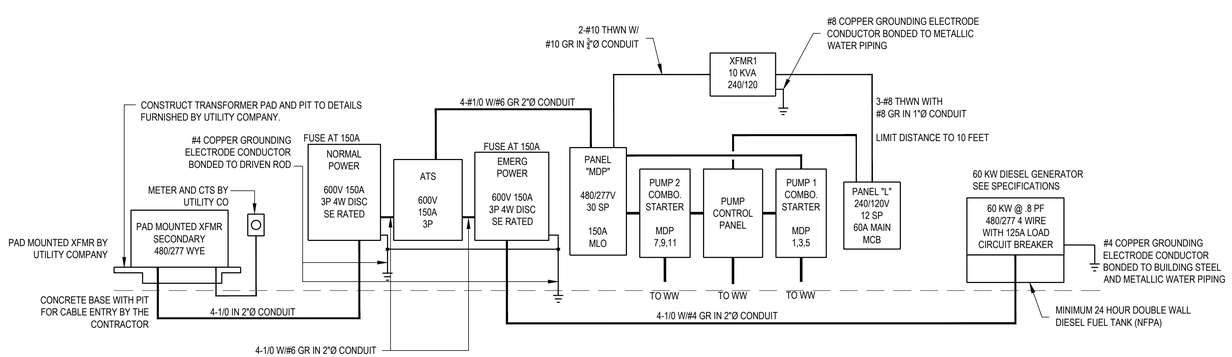


ELECTRICAL SERVICE ARRANGEMENT - FRONT VIEW

NOT TO SCALE

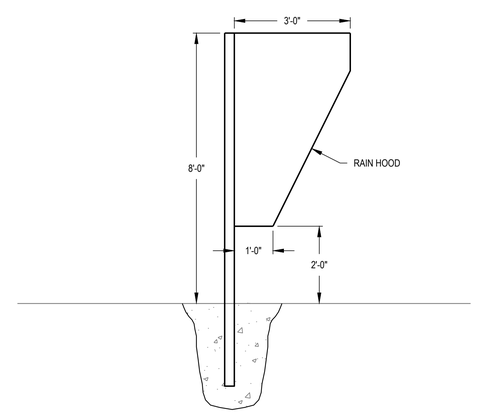
NOTES:

1. ALL DISCONNECTS SHALL BE HEAVY DUTY.
2. MINIMUM NEMA 4X RATING ON ENCLOSURES.
3. SEE SHEET PS-7 FOR ELECTRICAL NOTES.



ELECTRICAL RISER SCHEMATIC DIAGRAM

NOT TO SCALE



ELECTRICAL SERVICE ARRANGEMENT - SIDE VIEW

NOT TO SCALE

D.N. Kisley P.E.

115 MacKenan Drive
Cary, NC 27511
Phone: 460-9091

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ELECTRICAL DESIGN

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

PUMP STATION ELECTRICAL PLAN & DETAILS

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No.
PS-7

K:\080 (08-09)\2080976.20-Beaufort East Village Ph 1\CAD\Plan\PS7ATX\PS-7 - PS-8 PS Electrical.dwg - Monday, June 19, 2017 11:16:34 AM - BOYD, JOSEPH

Panel Schedule: PANEL"MDP" 3 Phase 4 Wire Voltage LL: 480 Voltage LG: 277

OC Devices: BREAKERS Device Family: BOLT ON Mounting: SURFACE Enclosure: NEMA 4X
Comments: 30 SPACE MAIN LUGS Bus Rating: 150A Available Fault Duty: 65 KA 3 Phase

CKT NO	DESCRIPTION/ LOCATION	*LOAD TYPE	*CRITERIA EA	QTY	DEM	TOTAL VA	REMARKS	DEVICE AMPS	P	PH	DEVICE AMPS	P	REMARKS	TOTAL VA	*LOAD TYPE	*CRITERIA EA	QTY	DEM	DESCRIPTION/ LOCATION	CKT NO
01	PUMP 1 COMBO STARTER 10HP	MTR			9	4850	3 #10 W/ #10 GR	25	3	A	30	2	2 #8 W/ #10 GR	3000	BUS#			3	$$XFMR1PRIM	02
03					9	4850				B			2 #8 W/ #10 GR	3000	BUS#			3	$$XFMR1PRIM	04
05					9	4850				C										06
07	PUMP 2 COMBO STARTER 10HP	MTR			9	3900	3 #10 W/ #10 GR	25	3	A	30	2	2 #10 W/ #10 GR	1500	MTR			9	BLOCK HEATER	08
09					9	3900				B				1500				9		10
11					9	3900				C										12
13										A										14
15										B										16
17										C										18
19										A										20
21										B										22
23										C										24
25										A										26
27										B										28
29										C										30

ENDUSE LOADS: PHASE A VA 13,250 PHASE B VA 13,250 PHASE C VA 13,250
TOTAL LOADS: DESIGN KVA 13.2 13.2 13.2
DESIGN FLA 48A 48A 48A

Panel Schedule PANEL "L" 3 Phase 4 Wire Voltage LL: 240 Voltage LG: 120
OC Devices: BREAKERS Device Family: BOLT ON Mounting: SURFACE Enclosure: NEMA 4X
Comments: 12 SPACE 60 MCB Bus Rating: 60A Available Fault Duty: 16KA 1 Phase

CKT NO	DESCRIPTION/ LOCATION	*LOAD TYPE	*CRITERIA EA	QTY	DEM	TOTAL VA	REMARKS	DEVICE AMPS	P	PH	DEVICE AMPS	P	REMARKS	TOTAL VA	*LOAD TYPE	*CRITERIA EA	QTY	DEM	DESCRIPTION/ LOCATION	CKT NO
01	DIALER/SCADA	GEN			1	500	2#12 W/#12GR	20	1	A	20	1	2#12W #12GR	1000	RECP			3	RECEPTACLES	02
03	BATTERY CHARGER	GEN			1	1500	2#12 W/#12GR	20	1	B	20	1	2#12W #12GR	500	LTS			1	YARD LIGHT	04
05	PUMP CONTROL PANEL	GEN			1	500	2#12 W/#12GR	20	1	A	20	1	2#12W #12GR	500	LTS			1	SHELTER LIGHT	06
07										B	20	1	2#12W #12GR	1000	LTS			1	HOT BOX	08
09										A										10
11										B										12

END USE LOADS: PHASE A VA 3,000 PHASE B VA 3,000
TOTAL LOADS: DESIGN KVA 3.0 3.0
DESIGN FLA 25.0 25.0

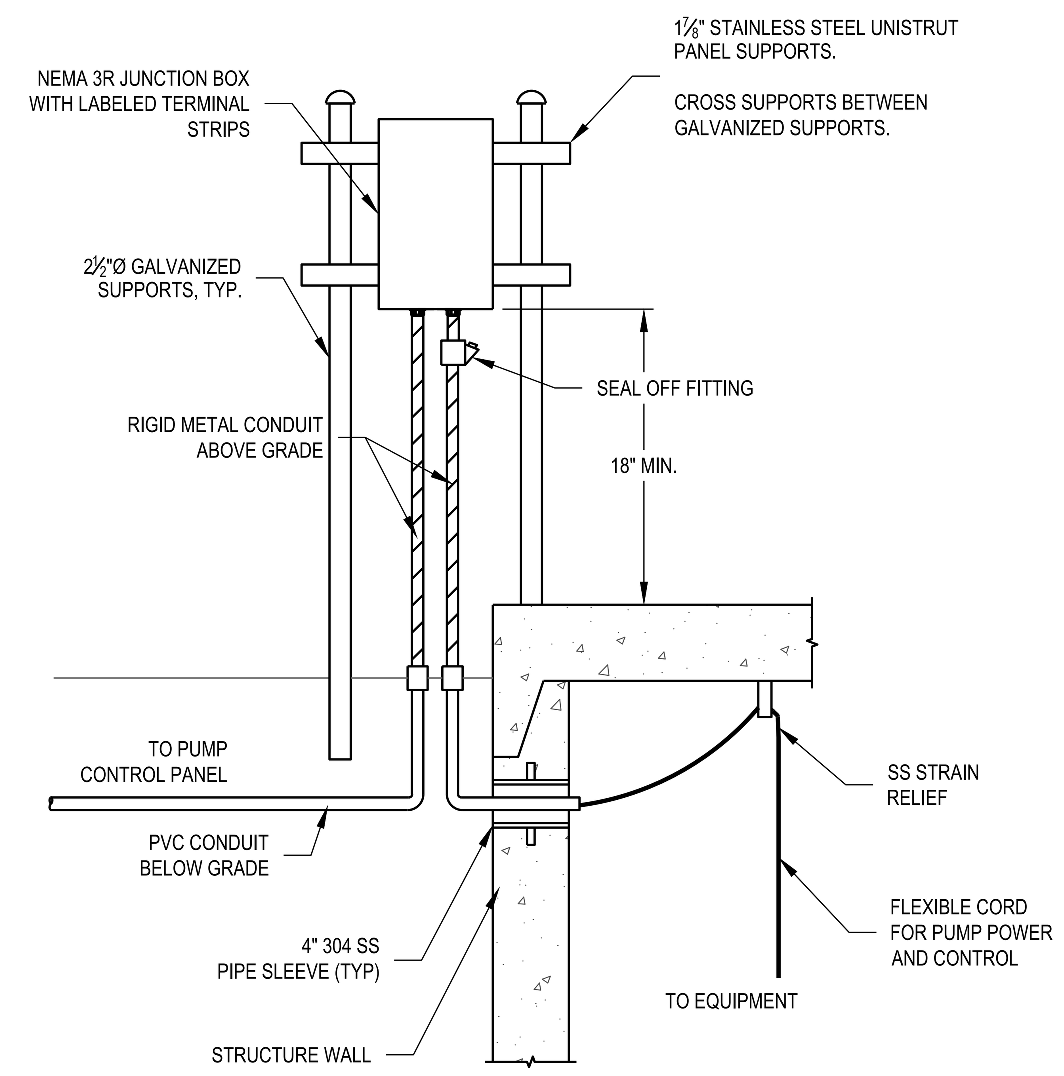
PS=PUMP STATION VENDOR
GS=GENERATOR/ATS SUPPLIER
EC=ELECTRICAL CONTRACTOR

CBOX Channel	Alarm Type	Alarm Status for Circuit	Wire Color Cable 1	Wire Color Cable 2	Responsible Party	
1	HIGH LEVEL ALARM	CLOSED	RED	RED	FURNISH INSTALL	PS EC
2	LOW LEVEL ALARM	CLOSED	WHITE		FURNISH INSTALL	PS EC
3	PUMP #1 HIGH TEMP	CLOSED	BLACK		FURNISH INSTALL	PS EC
4	PUMP #2 HIGH TEMP	CLOSED	GREEN		FURNISH INSTALL	PS EC
5	PUMP#1-SEAL FAILURE	CLOSED	BLACK		FURNISH INSTALL	PS EC
6	PUMP#2-SEAL FAILURE	CLOSED	BLUE		FURNISH INSTALL	PS EC
7	PUMP #1 RUN FAILURE	CLOSED		RED	FURNISH INSTALL	GS EC
8	PUMP #2 RUN FAILURE	CLOSED		BLACK	FURNISH INSTALL	GS EC
9	GENERATOR RUNNING NO ALARMS	CLOSED		BROWN	FURNISH INSTALL	GS EC
10	GENERATOR START FAIL	OPEN		WHITE	FURNISH INSTALL	GS EC
11	POSITION SWITCH ON ATS STATION ON COMMERCIAL POWER	OPEN		BLUE	FURNISH INSTALL	GS EC

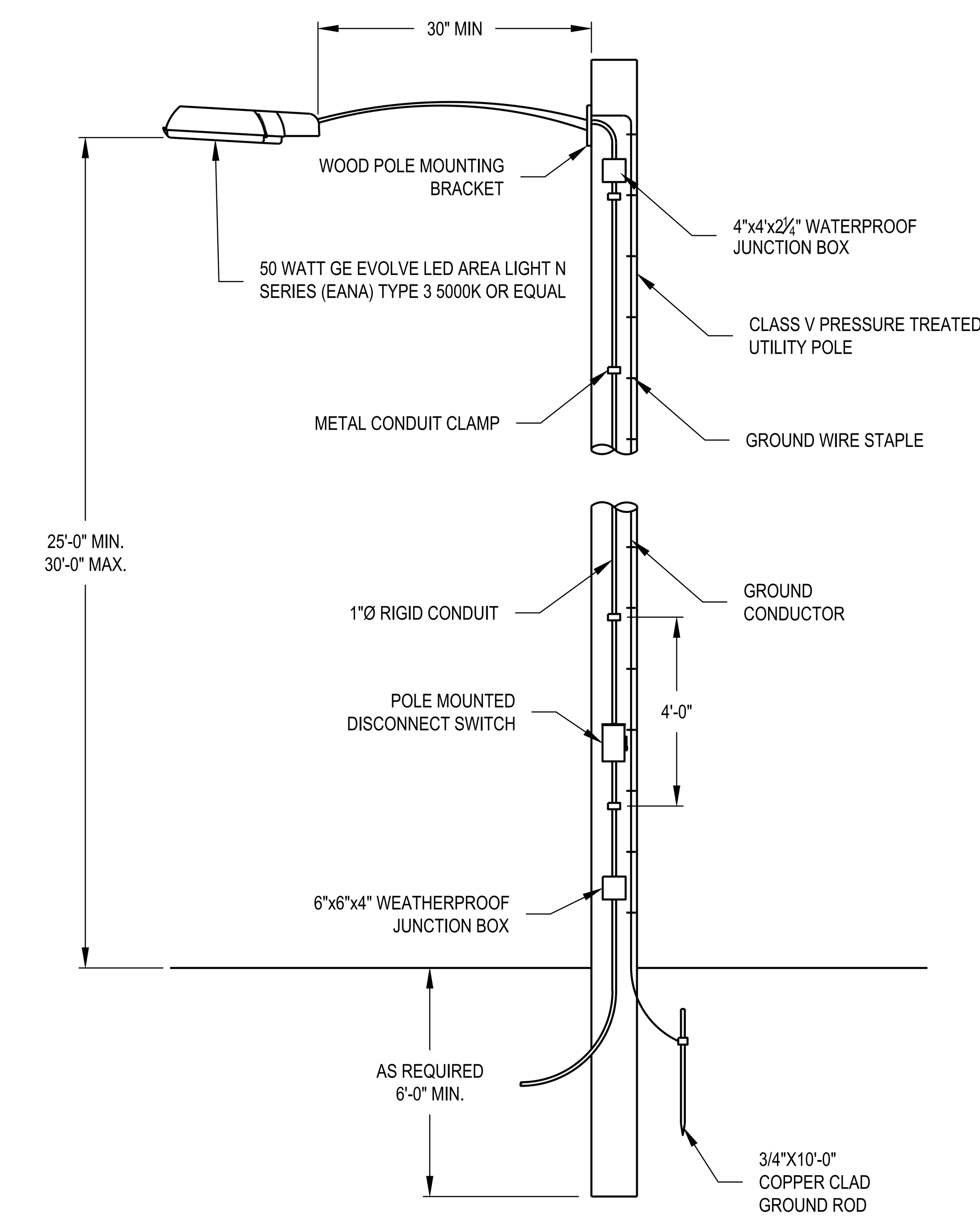
NOTES:

JB ABOVE GROUND JUNCTION BOX TO JOIN EQUIPMENT BRANCH CIRCUIT TO FLEXIBLE LEADS. BOX TO BE WATER PROOF. SEAL FLEXIBLE CABLE ENTRY INTO BOX WITH SEALOFF FITTING (GAS TIGHT). INSTALL KELLUMS CORD GRIPS AT TOP OF STRUCTURES TO SUPPORT VERTICAL SECTIONS OF EQUIPMENT FEED CABLE.

JBC ABOVE GROUND JUNCTION BOX TO JOIN EQUIPMENT CONTROLS TO FLEXIBLE CONTROL WIRE. INSTALL ADEQUATE SIZED WATERTIGHT PVC CONDUIT BELOW GRADE TO EQUIPMENT CONTROL PANELS AS REQUIRED.



JUNCTION BOX
NOT TO SCALE



LIGHT POLE DETAIL
NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF SHOP DRAWINGS FOR ENGINEERS APPROVAL.
2. ALL ELECTRICAL WORK SHALL CONFORM TO LATEST NATIONAL, STATE AND LOCAL CODES AND REQUIREMENTS.
3. THE ELECTRICAL COMPONENTS WERE DESIGNED BASED ON PUMP MOTORS WITH A RATING OF 10-HP WITH ACROSS THE LINE STARTERS.
4. PUMPS TO HAVE STAGGERED START SO THAT ONLY 1 PUMP CAN BE STARTED AT ANY 1 TIME WITH A MINIMUM 5 SECOND ADJUSTABLE DELAY.
5. CONTRACTOR SHALL COORDINATE AND PAY FOR ELECTRICAL SERVICE AND TRANSFORMER TO BE INSTALLED BY UTILITY COMPANY.
6. OVERCURRENT DEVICES SHALL BE READILY ACCESSIBLE AND SHALL BE INSTALLED SO THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN IT'S HIGHEST POSITION, IS NOT MORE THAN 5'-6" ABOVE FFE OF EQUIPMENT PAD. A PERMANENT WORKING PLATFORM COMPLETE WITH STEPS AND HANDRAILS MAY BE REQUIRED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER. THE PLATFORM MUST COMPLY WITH ALL OSHA REQUIREMENTS.
7. THE GENERATOR SHALL INCLUDE A SOUND ATTENUATING ENCLOSURE AND HOSPITAL GRADE SILENCER. THE GENERATOR SHALL HAVE A SOUND RATING OF LESS THAN 70 DBA AT A DISTANCE OF 7 METERS FROM THE OPERATING EQUIPMENT.
5. CONTRACTOR TO PROVIDE FUEL FOR TESTING THE GENERATOR. THE FUEL TANK SHALL BE TOPPED OFF AFTER ACCEPTANCE OF THE STATION.
6. ALL ABOVE GRADE CONDUIT SHALL BE RIGID METALLIC. MEYERS HUBS SHALL BE USED AT ALL PANEL CONNECTIONS.
10. CONDUIT NUMBER AND SIZE ARE APPROXIMATE. CONTRACTOR TO VERIFY CONDUIT SIZE AND ENSURE ITS ADEQUACY FOR ITS INTENDED PURPOSE.
11. EACH CONDUIT FROM WET WELL MUST HAVE A SEAL OFF BEFORE ENTERING A NEMA 4X 316 STAINLESS STEEL JUNCTION BOX.
12. USE NON-HARDENING MATERIAL IN CONDUIT SEALS ENTERING JUNCTION BOX.
13. BOTTOM OF JUNCTION BOX(ES) SHALL BE A MINIMUM 18" ABOVE GROUND LEVEL.
14. ALL ENCLOSURES SHALL BE NEMA 3R S.S. OR BETTER.
15. ALL DISCONNECTS SHALL BE HEAVY DUTY.
16. ALARM HORN AND LIGHT ARE ACTIVATED ANYTIME THE TELEMETRY INITIATES AN ALARM. SILENCER FOR ALARM HORN SHALL BE LOCATED IN PUMP CONTROL PANEL.
17. CONTROL PANEL SHALL BE INSTALLED WITH AUTOMATIC ALARM DIALER MEETING TOWN OF BEAUFORT SPECIFICATIONS.
18. ALL FIELD WIRING AND CONNECTIONS BETWEEN PUMPS AND FLOAT SWITCHES AND CONTROL PANEL BY CONTRACTOR.
19. ALL TRANSFORMERS ARE THREE PHASE GENERAL PURPOSE DRY TYPE FOR OUTDOOR USE UNLESS OTHERWISE NOTED.
20. FURNISH AND INSTALL SUITABLY SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS AND BRANCH CIRCUITS.
21. SOLIDLY GROUND ALL TRANSFORMERS TO DRIVEN ROD(S). ALL DISCONNECTS SHALL BE RATED FOR THE VOLTAGE OF THE SYSTEM IN WHICH THEY ARE INSTALLED AND SHALL BE HEAVY DUTY FUSIBLE TYPE UNLESS NOTED.
22. PANEL LAYOUT IS SCHEMATIC ONLY. CONTRACTOR SHALL DETERMINE LENGTH AND HEIGHT OF ELECTRICAL EQUIPMENT RACK, PROVIDED DIMENSIONS ARE FOR REFERENCE ONLY. MAINTAIN 4" MIN. CLEARANCE BETWEEN PANELS AND WEATHER HOOD SIDES.
23. EQUIPMENT RACK BACKING PLATE TO BE ¼" THICK ALUMINUM. MOUNT TO 4-INCH GALVANIZED STEEL POSTS WITH STAINLESS STEEL NUT, BOLTS, AND WASHERS.
24. ELECTRICAL EQUIPMENT SHALL BE MOUNTED TO THE ALUMINUM BACKING PLATE WITH NYLON SPACERS & STAINLESS STEEL NUTS, BOLTS & WASHERS.
25. ALL POSTS EMBEDDED IN CONCRETE SHALL BE COATED WITH BITUMINOUS PAINT.
26. NO EQUIPMENT SHALL BE MOUNTED LESS THAN 36" ABOVE FINISHED GRADE. MINIMUM CLEARANCE FROM WORK LIGHT TO STANDING PAD SHALL BE 7'-6".
27. NO PANELS SHALL EXTEND BEYOND BACK PANEL.

D.N. Kisley P.E.

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Cary, NC 27511
Phone: 460-9091

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 9531 DONALD NICHOLAS KISLEY

SEAL NOT VALID UNLESS SIGNED AND DATED

ELECTRICAL DESIGN

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

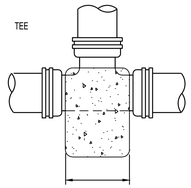
PUMP STATION ELECTRICAL PLAN & DETAILS

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No.
PS-8

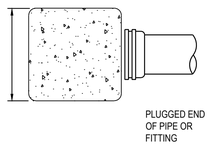
K:\08\08-0970\080976.20-Beaufort East Village Ph 1\CAD\PUMP STATION\PS-7 - PS-8 PS Electrical.dwg- Monday, June 19, 2017 11:16:43 AM - BOYD, JOSEPH

TEE



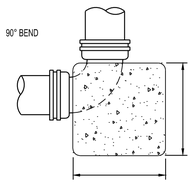
PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-2" x 1'-2"
6"	1'-6" x 1'-6"
8"	1'-9" x 1'-9"
10"	2'-2" x 2'-2"
12"	2'-8" x 2'-8"

PLACE 20 GA. GALV. SHEET BETWEEN PLUG AND BLOCKING



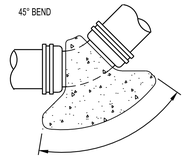
PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-2" x 1'-2"
6"	1'-6" x 1'-6"
8"	1'-9" x 1'-9"
10"	2'-2" x 2'-2"
12"	2'-8" x 2'-8"

90° BEND



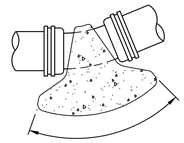
PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-0" x 1'-0"
6"	1'-3" x 1'-3"
8"	2'-0" x 2'-0"
10"	2'-6" x 2'-6"
12"	3'-0" x 3'-0"

45° BEND



PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-0" x 1'-0"
6"	1'-3" x 1'-3"
8"	1'-6" x 1'-6"
10"	2'-0" x 2'-0"
12"	2'-3" x 2'-3"

22 1/2° BEND



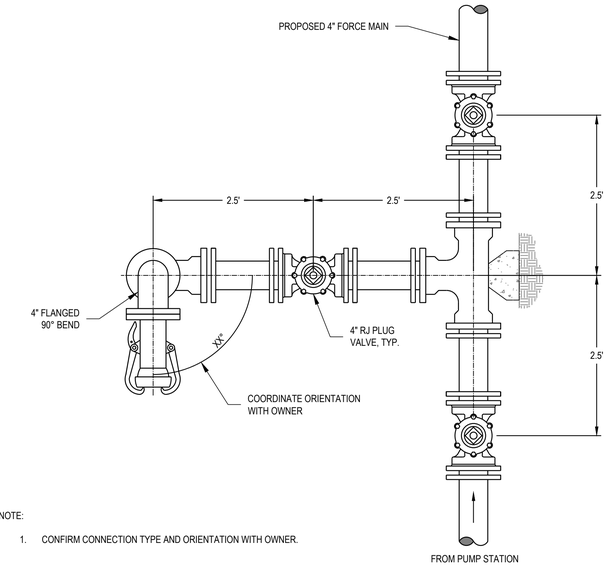
PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-0" x 1'-0"
6"	1'-0" x 1'-0"
8"	1'-2" x 1'-2"
10"	1'-6" x 1'-6"
12"	1'-8" x 1'-8"

NOTES:

1. EITHER CONCRETE THRUST BLOCKING OR MECHANICAL RESTRAINTS ARE TO BE USED WHERE THERE IS A FITTING AND CHANGE OF LINE SIZE.
2. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
3. NO CONCRETE SHALL BE PLACED ON PIPE JOINT.
4. HEAVY DUTY PLASTIC SHALL BE WRAPPED AROUND JOINT WHERE CONCRETE BLOCKING IS USED.
5. PIPING LESS THAN 2" IN DIAMETER SHALL HAVE THE SAME REQUIREMENTS AS 2" DIAMETER PIPE.

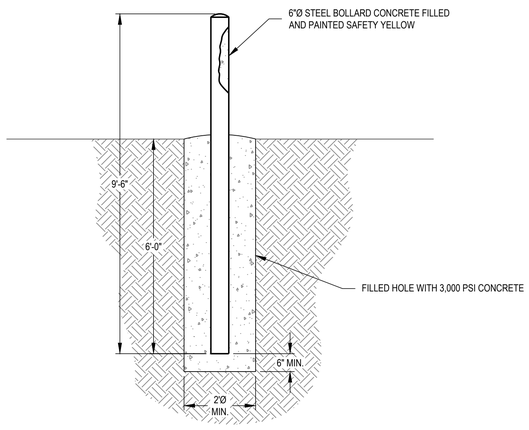
CONCRETE THRUST BLOCKING

NOT TO SCALE



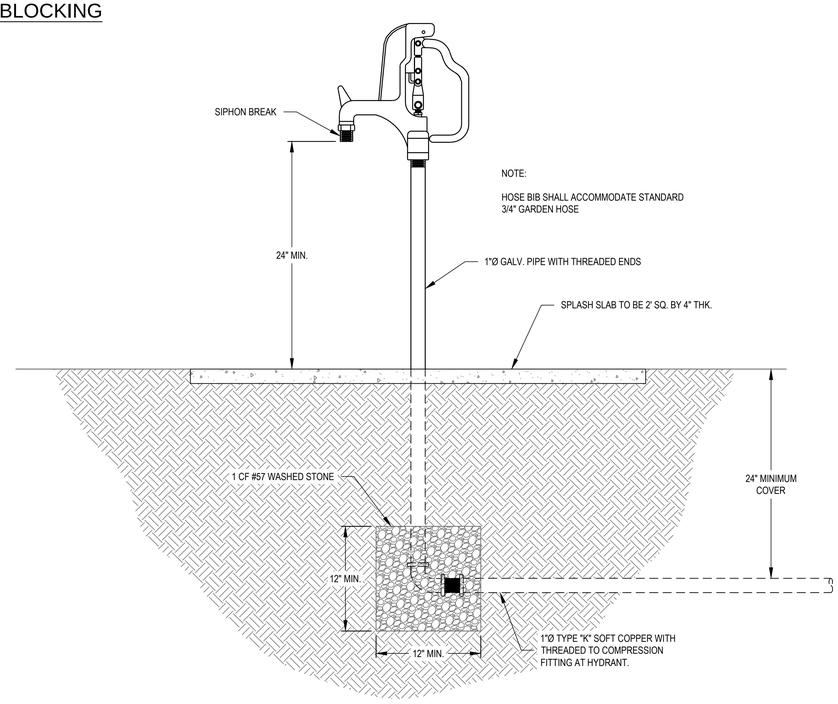
NOTE:

1. CONFIRM CONNECTION TYPE AND ORIENTATION WITH OWNER.



BOLLARD

NOT TO SCALE

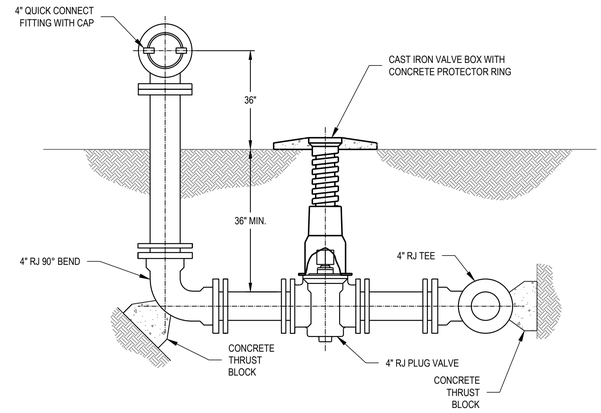


NOTE:

HOSE BIB SHALL ACCOMMODATE STANDARD 3/4" GARDEN HOSE

YARD HYDRANT - NONFREEZE TYPE

NOT TO SCALE



EMERGENCY BYPASS CONNECTION DETAIL

NOT TO SCALE

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 042182 ENGINEER JOSEPH W. HOLLEMAN III

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer CNH	Scale AS SHOWN
Drawn By CNH	Date JUNE 2016
Checked By JJW	Job No. 2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

PUMP STATION MISCELLANEOUS DETAILS

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No.
PS-9

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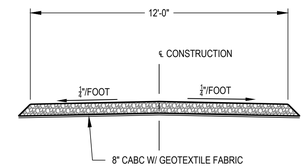
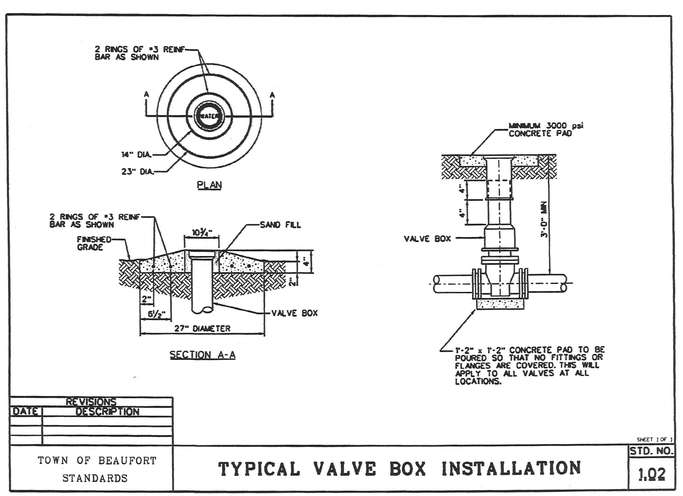
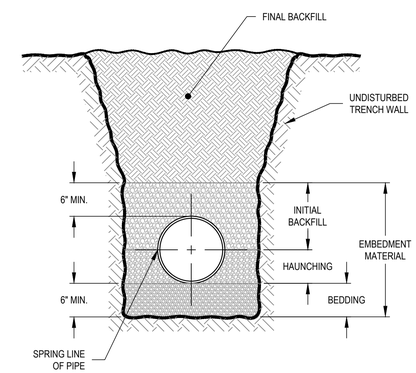


ACCESS DRIVE SECTION

NOT TO SCALE





TRENCH CROSSING SECTION

NOTES:

1. FOR FLEXIBLE PIPE EMBEDMENT MATERIAL MAY BE EITHER CLASS I OR CLASS II.
2. FOR SEMI-RIGID PIPE, EMBEDMENT MATERIAL MAY BE CLASS I, CLASS II OR CLASS III.
3. EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY FOR CLASS I AND CLASS II MATERIALS, AND A MINIMUM OF 95% STANDARD PROCTOR DENSITY FOR CLASS III.

BEDDING FOR FLEXIBLE PIPE

NOT TO SCALE

PRELIMINARY

NOT APPROVED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 024420 ENGINEER CHRISTOPHER N. HUFF

SEAL NOT VALID UNLESS SIGNED AND DATED

No.	Revision	Date	By

Designer	CNH	Scale	AS SHOWN
Drawn By	CNH	Date	JUNE 2016
Checked By	JJW	Job No.	2080976.20

BEAUFORT EAST VILLAGE PHASE 1

Town of Beaufort Carteret County North Carolina

PUMP STATION MISCELLANEOUS DETAILS

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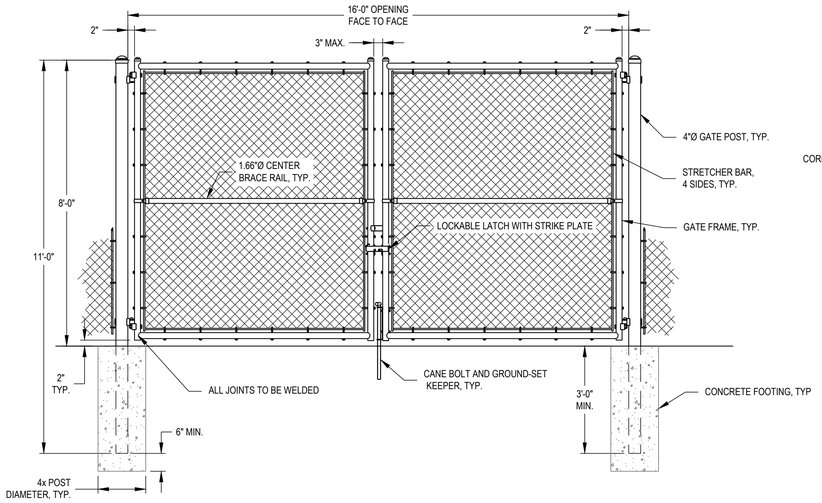
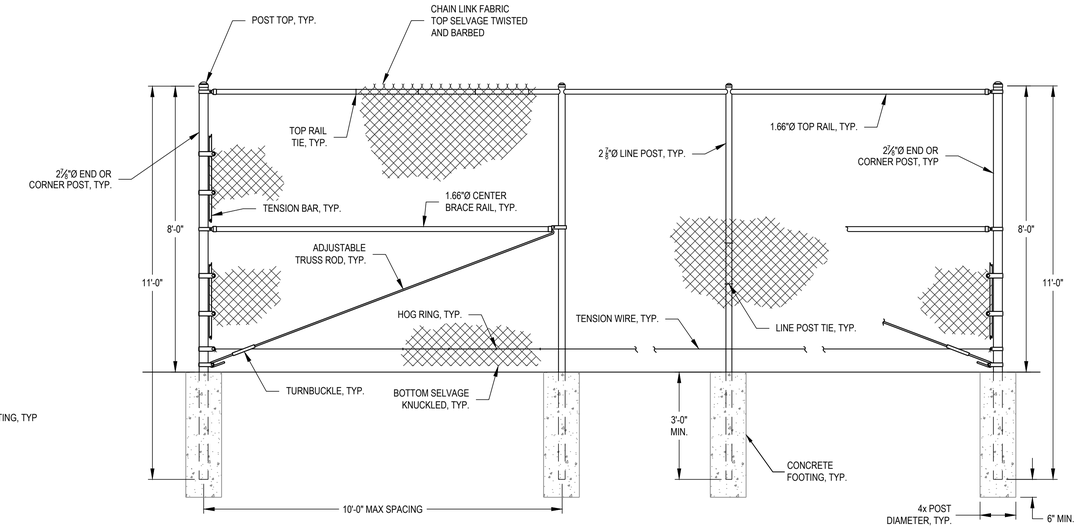


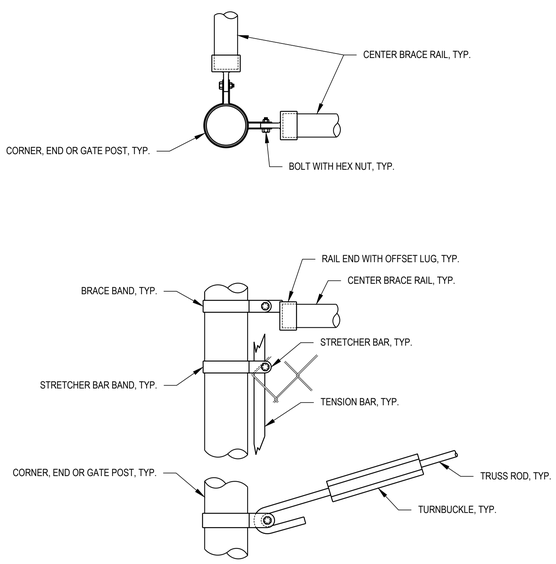


NOTES:

1. FENCE FABRIC, POSTS AND HARDWARE SHALL BE GALVANIZED AND VINYL COATED.
2. FENCE SHALL BE PROVIDED WITH VINYL SCREENING SLATS.
3. SEE PROJECT MANUAL FOR MATERIAL AND COMPONENT SPECIFICATIONS.

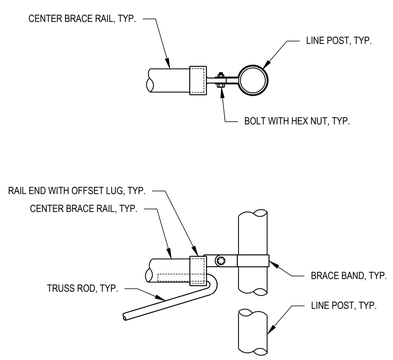
CHAIN LINK FENCE DETAIL

NOT TO SCALE



END, CORNER AND GATE POST

NOT TO SCALE



LINE POST

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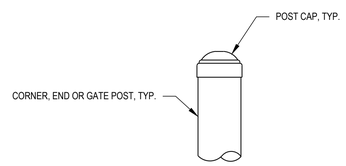
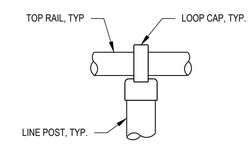


CORNER POST

NOT TO SCALE



ROUND TERMINAL POST

NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 024420 ENGINEER CHRISTOPHER N. HUFF

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No.	Revision	Date	By

Designer	CNH	Scale	AS SHOWN
Drawn By	CNH	Date	JUNE 2016
Checked By	JJW	Job No.	2080976.20

BEAUFORT EAST VILLAGE PHASE 1

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