

SHORE PROTECTION ACT PERMIT APPLICATION

1. APPLICANTS

Comes now Stephen S. Friedman and Annette N. Friedman ("Applicants"), and hereby submit their request for a Shore Protection Act ("SPA") permit, pursuant to OCGA Section 12-50-230, to permit land disturbing activities within the SPA jurisdictional area of a single-family residential dwelling located at 2 8th Place, Tybee Island, Chatham County, Georgia, 31328; and further identified as that parcel of land described in Exhibits I and J ("Subject Property"). Applicants are full-time, permanent residents of Tybee.

2. SUBJECT PROPERTY DESCRIPTION

The Subject Property is located mid-island, on the eastern coast of Tybee Island. (See Google Earth Photo - Exhibit K). Tybee is a treasured resource, with deep historical roots within the local community, the city of Savannah, and the State of Georgia. Applicant's family has owned a residence on Tybee almost continuously since the very early 1900s.

The beachfront area east of the subject property has grown dramatically over the many years that beach renourishment has been taking place. The distance from the easternmost point of the Subject Property to the average high-water mark is 564 feet. East of the subject property, are 3 primary dune ridge lines, varying in elevation from +17' to +14. The activities contemplated in this Permit Application are several hundred feet landward of these dune ridges and in no way impacting them. 18' east of the easternmost point of the Subject Property is a buried 10' tall concrete and steel seawall, built in the mid-1930s. The contemplated activities are west of, and have no impact on, the seawall. Immediately north and east of the Subject Property is a roughly 3' wide walking trail, providing residents of 8th Place and 8th Terrace with walking access to the beach. This trail has existed for more than 40 years.

The total size of the Subject Property is 9,012 square feet.

The Friedman residence is a 3-story structure. The ground level is a garage and storage area, and the upper two (2) floors are finished living space. The ground level exterior walls of the residence are made of split-face concrete block, and the upper two (2) floors are wood-frame. Set forth below in SECTION 5 is an analysis of the square footage impacted by the historically existing structures (home, outdoor stairs, outdoor shower, and driveway), as well as the square footage of the Subject Property that will be impacted at the completion of the proposed project.

3. PRIMARY OBJECTIVES OF THIS APPLICATION

1) Preventing Structural Damage to Applicants' residence – Beach renourishment has had a profound positive impact on the establishment and stabilization of major dune ridges across all of Tybee. This is particularly true in Tybee's mid-island beachfront area (7th Street to 12 Street), where three (3) very large dune lines have developed.

A smaller "outlying" dune has developed on Applicants' property, several hundred feet west of the 3 primary dune lines. It abuts the easternmost wall of Applicants' residence. The August 31, 2018 JD line identified by the DNR locates the landward toe-of-the-dune line associated with this smaller "outlying" dune, as being the eastern wall of Applicants' residence. Applicant's architect, Shedrick Coleman (GA Registered - #8175) has identified this smaller, outlying dune as posing a serious structural threat to Applicants' residence. (See letter from Shedrick Coleman, dated September 7, 2018, attached as Exhibit C). In the event of a major hurricane, there is a concern that the dune could push through the split-face concrete block first floor wall of Applicants' residence. The City of Tybee Planning Commission, the Tybee City Council, and the Tybee Zoning Manager all agree that the current location of this smaller, outlying dune, against the side of Applicants' home, poses a structural threat thereto.

Applicants' plan contemplates the relocation and stabilization of this smaller outlying dune to the eastern side of their property (detailed description included below in Phase 2 section). It is important to note that all of proposed activities are on Applicants' private property, and are several hundred feet west of the three (3) major dune lines described above (See Property Survey dated 8/31/18, with JD line and topo, attached as Exhibit A). The proposed project will have no impact whatsoever on, or even near, the three (3) primary dune lines.

2) Reducing/Eliminating a Severe Rainwater Flooding problem in the area surrounding Applicants' property – The area around Applicants' residence, including the homes immediately west and north thereof, forms a low-lying bowl into which drains the rainwater from the surrounding neighborhood. The adjacent homes experience severe flooding inside the ground floor portion of their homes during heavy rains. This interior damage has resulted in numerous, recurring insurance claims for damage from rainwater flooding.

Applicants proposal includes the installation of a series of catch basins, pumps and PVC piping to drain the flood water away from their and their neighbors' homes. A small portion of the proposed system, specifically the three (3) catch basins and connecting pvc piping, are to be located on the residential property immediately west of the Subject Property, which is owned by the Lyons Tybee House, LLC. A letter of permission and support from Patrick Lyons, an authorized Member of Lyons Tybee House, LLC, for the installation of the proposed system, along with a copy of the Warranty Deed into Lyons Tybee House, LLC, is attached hereto as Exhibit B.

3) Enhancing Applicant's Use and Enjoyment of their Home – Applicants' residence, constructed by a prior owner, has no screen porch at the main living level. Applicant's seek to add a screen porch at their main living level, as is common on Tybee Island. Applicants' also propose to plant the area adjacent to the new screen porch with native grasses and plants. A comprehensive landscape plan will be provided to DNR staff prior to installation.

4. DESCRIPTION OF THE THREE PHASES OF THE PROJECT

Attached as Exhibit D is the Proposed Project Plan Plat, reflecting all 3 phases of the project.

PHASE 1

All of the improvements described in Phase 1 were completed prior to the establishment by DNR of its most recent JD line. At the time these improvements were made, the then existing JD line was east of the area in which the improvements were made. Applicants had a good faith belief that they were not required to obtain DNR permission to make improvements in this area. Applicants did obtain all required permits for the improvements from the City of Tybee. Subsequent to the completion of these improvements, DNR identified the location of the JD line and determined that the area where the Phase 1 improvements were made does fall within its jurisdiction. Applicants and DNR staff agree that these improvements, all of which lie west (landward) of Applicants' residence, should be included in this application for retroactive approval. Photographs of the

improvements in Phase 1 are attached as Exhibits E-1, E-2, and E-3.

- 1) Fencing – Applicants installed a fence along a portion of the western and northern boundaries of their existing residence. The existing fencing is a 5' tall picket fence, running approximately 116 linear feet. Total ground area impacted by the fence is approximately 5 square feet. Applicants had obtained all required permits from the City of Tybee prior to installation.
- 2) 3' Wide Pervious Paver Walkway – Applicants created a garden along the western and northern sides of their residence in which they planted a variety of fruit trees (orange, peach, muscadine, lime, lemon, blackberry etc.) Applicants contracted for the installation of a 3' wide paver walkway within the garden area, both west and north of the Applicants' residence. The precise location of the paver walkway is reflected on the Proposed Project Plan Plat attached as Exhibit D. While not required to do so, Applicants used pervious pavers to permit rain water to drain directly into the soil, rather than creating additional runoff. Total ground area impacted by the pervious pavers is approximately 327 square feet. Applicants had obtained all required permits from the City of Tybee prior to installation.
- 3) Palm Tree relocation – Applicants relocated 2 palm trees from the western side-yard to the northern side-yard of their residence. Applicants had obtained all required permits from the City of Tybee prior to installation.
- 4) Storm-water drainage system – Prior to the installation of the pervious pavers described above, Applicants installed 3 catch basins, 2 underground pumps and connecting 4" PVC piping (a) along the western and northern sides of their residence, and (b) on the side-yard of the neighboring property to their west, (the exact location of catch basins, pumps, and PVC piping is reflected on the Proposed Project Plan attached as Exhibit D.) This system is **NOT** operational and can only be completed with the work required in Phase #2. **None of the Phase 1 portion of the storm-water drainage system (including pumps and pvc piping) extends seaward of Applicants' residence.**

Pump Details – The pumps installed are ½ horsepower "Liberty Pumps Pro 380". They will be powered by regular single-phase electrical power from Applicant's residence, and supported during power outages with a propane-powered Generac generator. Each pump has the capacity to pump 100 gallons per minute [total of 200 gallons per minute for the entire system]. Attached hereto as Exhibit H is a calculation demonstrating that the two pumps can handle a rainfall rate in the flood prone area of 3 inches per hour.

PHASE #2

None of the following improvements have been made.

- 1) Dune Relocation and Stabilization– As reflected on the attached Proposed Project Plan Plat (Exhibit D), Applicants propose to relocate the dune that is currently along and against the eastern wall of their home to a 20' wide Dune Relocation Area on the eastern portion of their lot. Currently, the proposed dune relocation area forms a bowl or depression at the eastern side of the Subject Property. Much of the sand to be moved will go into this depression/bowl. Importantly, the proposed Dune Relocation Area aligns with the existing dune ridges located on the properties immediately north and south of Applicants' property. Connecting the dune line across all the properties lying between 8th Street and 9th Street will provide additional protection to Applicants' structure and the adjoining properties in the event of storm surge from a major hurricane.

The elevation of the ridge of the dune in its current location immediately abutting Applicants' residence is + 18/19 feet. Immediately east of that ridge on Applicants' property are bowls or valleys with an elevation of +10/12 feet. The relocation of the dune contemplates a gradual slope, beginning at an elevation of approximately +10 feet at the point abutting Applicants' residence, to a newly created ridge in the Dune Relocation Area with an elevation of approximately +18/19 feet. The total quantity of sand to be relocated is approximately 503 cubic yards. See dune profile included on Proposed Project Plan Plat (Exhibit D).

The relocation will involve the use of heavy equipment, most likely a front-end loader with a bucket. The equipment will access the area directly from Applicant's property. No impacts are expected outside of the area covered by the proposed permit. As specifically discussed above, the proposed project is several hundred feet from and will have no impact whatsoever on or near the three (3) primary dune lines that have developed as a result of beach renourishment.

Stabilization of the newly relocated dune and adjoining area is of paramount importance. Applicants will temporarily use snow-fencing to stabilize plantings of native grasses and plantings. Applicants propose temporary irrigation of those native plantings until they are stabilized. Applicants propose to provide temporary irrigation by installing a shallow well (30-40 feet deep) on their property (the precise location of the shallow well to be identified on the landscaping plan provided to DNR staff prior to installation.) In addition to the SPA permit, a separate permit for the temporary shallow well from the City of Tybee will be required.

The newly established "open space" between the dune relocation area and the Applicants' home will be intensively landscaped with native grasses and plantings, to further stabilize the entire area.

- 2) Completion of storm water drainage system – As reflected on the Proposed Project Plan Plat (Exhibit D), Applicants propose to complete the construction of the storm water drainage system by extending the 4" main pvc piping eastward toward the dune relocation area. There will be three (3) 4" laterals running north/south (perpendicular to the main 4" line). They will be located roughly 15 feet apart, as shown on Exhibit D. The PVC lateral pipes will be perforated and wrapped with an appropriate filter fabric. The storm water will percolate back into the ground water, eventually providing enough natural water to the planted areas to maintain them, and allow the removal of the temporary irrigation. To ensure the continuous functioning of the pumping system in the event of a power outage, Applicants contemplate the installation of a propane Generac generator and propane tanks (See Exhibit D).
- 3) Toe-of-the-dune Stabilization and Demarcation – Once the dune has been relocated, the City of Tybee requires that a new 10' toe-of-the-dune setback line be established. The attached Proposed Project Plan Plat (Exhibit D) identifies the location of this setback area, immediately west of the dune relocation area. In granting Applicants' variance, the City of Tybee approved the relocation of the toe-of-the-dune line as shown on the site plan. Also reflected on the Proposed Project Plan, Applicants propose installing a short (2-3' tall) non-structural landscape wall immediately west of the newly established toe-of-the dune line. It will be made of interlocking bricks/stones of the type sold at hardware stores. The proposed non-structural wall will impact approximately 105 square feet of land.

PHASE #3

Screen Porch Addition

After the completion of Phases 1 & 2, Applicants propose to construct a screen porch adjoining their existing residence. The location of the proposed screen porch is reflected on the Proposed Project Plan (Exhibit D). The size of the screen porch is roughly 24' X 24'. It will be elevated on piers above grade, to match the elevation of Applicants' primary living floor (approximate elevation is +16/17'). A drawing of the proposed screen porch, prepared by Applicants' licensed architect, including his certification that all construction will meet required building code provisions regarding hurricane standards, is attached hereto as Exhibit F. Prior to commencing construction, Applicants will be required to obtain all necessary building permits from the City of Tybee. The proposed screen porch will impact roughly 559 sq. ft. of ground area.

Summary of Proposed Project - Phases 1-3

The proposed project, in all three phases, goes to great lengths to balance the legitimate rights of the Applicants' private property rights, with the legitimate rights and interests of the State of Georgia. Every effort has been made to minimize impacts, ensure stabilization, and to improve the Subject Property in a responsible fashion. As discussed below in detail, Applicants have worked closely with DNR staff to ensure that the Proposed Project Plan satisfies the requirements of the SPA, with specific reference to OCGA 12-5-239(c)(1)&(2).

5. TOTAL IMPACTED AREA CALCULATION

The following table reflects the total area impacted by each element of the Proposed Project Plan, as well as the cumulative impact thereof.

TOTAL SIZE OF SUBJECT PROPERTY	9,012 Sq. Feet
EXISTING IMPACTED AREAS	Sq. Feet Impacted
Single-Family Residence (including exterior stairs)	2,533
Outdoor Shower	16
Driveway	332
TOTAL	2,881
PHASE 1 POST-COMPLETION IMPACTS	
Pervious Paver Walkway	327
Pumps and Underground PVC pipe	77
Fence	5
Phase 1 Subtotal	409
PHASE 2 POST-COMPLETION IMPACTS	
Buried PVC pipe – for storm water discharge	110
Non-structural Toe of Dune Demarcation Wall	105
Phase 2 Subtotal	215
PHASE 3 POST-COMPLETION IMPACTS	
Screen Porch	559
Phase 3 Subtotal	559
TOTAL IMPACT OF PHASES 1-3	1,183
% of Property Impacted Prior to Proposed Activity	31.96%
% of Property Impacted After Proposed Activity	45.09%

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6. DNR JURISDICTIONAL DELINEATION

The location of the SPA JD line has been confirmed by the Coastal Resources Division pursuant to a site visit and confirmed by letter, dated September 5, 2018 (attached hereto as Exhibit M), in accordance with a survey prepared by Coleman Company, Inc. dated 8/31/18 and attached hereto as Exhibit A.

7. ALTERNATIVES CONSIDERED

- a. **DUNE RELOCATION** – The alternatives considered were (A) reconstructing the dune with a gradual, natural slope and without a massive structural retaining wall, near the eastern boundary of the Subject Property, or (B) moving the dune only 5-10 feet to the east, and retaining the dune with a massive (10-12' tall) structural retaining wall. It was the opinion of all parties involved (Applicants, the City of Tybee, and DNR Staff) that a natural, gently sloping, appropriately-planted dune was preferable to the construction of a massive retaining wall on Applicants' property.
- b. **STORM WATER MANAGEMENT** – The Applicants property is separated from Butler Ave., the nearest location of a storm water outfall, by several hundred feet. Between Butler Ave. and the Subject Property, there is an upward elevation change, making it virtually impossible to move the storm water to the west. Moreover, to move the storm water to Butler, would require major construction on the properties of all the homes on 8th Place. The City of Tybee will not support such a plan. Discharge into the eastern sandy area of Applicants' property is the preferred solution and it has the long-term benefit of providing natural rainwater to irrigate the plantings needed to stabilize the dune and surrounding areas.
- c. **SCREEN PORCH LOCATION** – Applicants' home is located at the minimum side-yard setback location on the north, south, and west sides. The only land owned by Applicants on which a screen porch can be built is the eastern side of the existing residence.

8. LANDFILL AND HAZARDOUS WASTE STATEMENT

The Subject Property is not located on top of a landfill nor is it a hazardous waste site according to information posted on the Georgia Hazardous Site Index. The Subject Property, therefore, is eligible for a permit for the Proposed Project.

9. REQUIREMENTS UNDER O.C.G.A. § 12-5-239(c)

(c) *No permit shall be issued except in accordance with the following provisions:*

(1) *A permit for a structure or land alteration, including, but not limited to, private residences, motels, hotels, condominiums, and other commercial structures, in the dynamic dune field may be issued only when:*

(A) *The proposed project shall occupy the landward area of the subject parcel and, if feasible, the area landward of the sand dunes:*

The Proposed Project occupies only land owned by Applicants. The Project involves the relocation of a minor, outlying sand dune from its current location.

abutting Applicants' residence to a location on the eastern portion of Applicants' property. When completed, that sand dune's location will be aligned with the dune ridges on the properties immediately north and south of Applicants property, thereby providing greater protection to the entire area from storm surge in a major hurricane.

(B) At least a reasonable percentage, not less than one-third, of the subject parcel shall be retained in its naturally vegetated and topographical condition:

The Proposed Project will result in 54.91 % of the subject parcel being maintained in a natural and improved vegetated and topographical condition.

(C) The proposed project is designed according to applicable hurricane-resistant standards.

The Proposed Project meets the current hurricane-resistant standards. As shown on Exhibit F, Shedrick Coleman, a Georgia licensed architect, has certified that the screen porch will be constructed to meet existing building codes, including those related to hurricane resistance.

(D) The activities associated with the construction of the proposed project will be kept to a minimum, temporary in nature, and, upon project completion, will restore the natural topography and vegetation to at least its former condition, using the best available technology.

The construction activities associated with the Proposed Project will not be more invasive than is minimally required to complete the Proposed Project. The natural topography and native vegetation will be restored to a more excellent condition than presently exists.

(E) The Proposed Project will maintain the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion, both to the unaltered section of the subject parcel and at other shoreline locations.

The proposed project enhances the sand-sharing area, by connecting the relocated dune to the existing dune ridges immediately to the north and south of the Subject Property. The proposed relocation will have no impact on wave action or beach erosion. The average high water mark is more than 500' from the easternmost part of the Subject Property.

(2) No permits shall be issued for a structure on beaches, eroding sand dune areas, and submerged lands; provided, however, that a permit for a pier, boardwalk, or crosswalk in such an area may be issued, provided that:

(A) The activities associated with the construction of the proposed land alterations will be kept to a minimum, temporary in nature, and, upon project completion, the natural topography and vegetation will be restored to at least their former condition, using the best available technology.

The construction activities associated with the Proposed Project will not be more invasive than is minimally required to complete the Proposed Project. The natural topography and native vegetation will be restored to a more excellent condition than presently exists. No structure is proposed on or near the beach, eroding sand dune

areas, or submerged lands.

(8) The Proposed Project maintains the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion, both to the unaltered section of the subject parcel and at other shoreline locations.

The Proposed Project takes place over 500 feet from the average high-water mark. As such, it has no real impact on storm-wave damage or erosion. If there is any impact at all, the connection of the line of dunes between 8th Street and 9th Street enhances the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion in the event of a major hurricane.

(3) A permit for shoreline engineering activity or for a land alteration on beaches, sand dunes, and submerged lands may be issued only when:

(A) The activities associated with the construction of the proposed project are to be temporary in nature, and the completed project will result in complete restoration of any beaches, dunes, or shoreline areas altered as a result of that activity;

All activities associated with the Proposed Project are temporary in nature and will have no adverse impact on the beaches, dunes or shoreline areas. There is no public access or parking from the private lane on which Applicants' residence is located to the beach or shore area, so this project has no impact on public access. This project has no impact on the narrow walking path, immediately north of Applicants' property, used by some residents of the private lane to access the beach.

(B) The proposed project will insofar as possible minimize effects to the sand-sharing mechanisms from storm-wave damage and erosion both to the subject parcel and at other shoreline locations.

Not only does the Proposed Project not adversely impact the sand-sharing system mechanisms from storm-wave damage and erosion, it actually enhances the benefit of that system with regard to limiting storm-wave damage and erosion in the event of a major hurricane.

(C) In the event that shoreline stabilization is necessary, either low-sloping porous rock structures or other techniques which maximize the dissipation of wave energy and minimize shoreline erosion shall be used. Permits may be granted for shoreline stabilization activities when the applicant has demonstrated that no reasonable or viable alternative exists; provided, however, that beach restoration and renourishment techniques are preferable to the construction of shoreline stabilization activities; and

The activities of the Proposed Project Plan do not include any shoreline stabilization structures. Only native vegetation will be used to stabilize the impacted area.

(D) A copy of the permit application has been transmitted to the local unit of government wherein the project site lies, if such local unit of government has been certified by the board, requesting comments on such application.

A letter from George Shaw, Planning and Zoning Manager for the City of Tybee, Chatham County, Georgia, dated October 12, 2018, confirming the approval of

Applicants' variance application to move forward with the proposed project, along with a signed copy of the Site Plan, as approved by the City of Tybee, is attached as Exhibit G.

10. PUBLIC INTEREST STATEMENT PURSUANT TO O.C.G.A. § 12-5-239(I)

(i) In passing upon the application for a permit, the permit-issuing authority shall consider the public interest which for purposes of this part shall be deemed to be the following considerations:

Having considered whether the Proposed Project creates an unreasonable risk of harm to the public, public lands, and conservation and environmental attributes of the area, the Applicants state the following:

(1) Whether or not unreasonably harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created;

When completed the Proposed Project is for private use on private property and it will have no impact, cause no harm, or increase alternation of the dynamic dune field or submerged lands, or the function of the sand-sharing system.

(2) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of marine life, wildlife, or other resources; and

The granting of the requested permit and the completion of the Proposed Project Plan will have no impact, cause no harm, or interfere with the conservation of marine life, wildlife, or other resources. The Subject Property contains no wildlife habitat. All existing and proposed exterior lighting will conform with the City of Tybee's lighting ordinance (Code of Tybee Island, Appendix A, Article 3, Section 3-230-Turtle Nesting Protection)

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with reasonable access by and recreational use and enjoyment of public properties impacted by the project.

The granting of the requested permit and the completion of the Proposed Project Plan will have no impact, cause no harm, or interfere with access by any recreational use and enjoyment of public properties. The Subject Property is located on a private drive. There is no public access from the Subject Property to any public land. The Proposed Project is entirely on private property.

11. DEED AND PROPERTY PLAT

The Applicants' Deeds to the Subject Property, recorded in the Chatham County Superior Court public records, are attached hereto at Exhibits I and J.

12. VICINITY MAP AND DIRECTIONS TO THE PROJECT SITE

A Google photographic vicinity map for the Subject Property is attached hereto at Exhibit K.

Drive to the Subject Property by taking US Highway 80 to Tybee Island. Turn left onto 8th Place. The Subject Property is located at the northeast end of 8th Place.

13. ADJOINING PROPERTY OWNERS

Names and addresses of adjoining property owners is attached at Exhibit L.

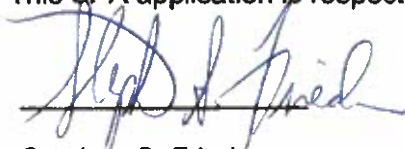
14. ZONING LETTER AND SIGNED DRAWINGS FROM LOCAL GOVERNMENT

A letter from George Shaw, the Planning and Zoning Director for the City of Tybee Island, Georgia, together with a copy of the signed plans of the Proposed Project, is attached hereto as Exhibit G.

15. CERTIFICATION THE PROJECT MEETS HURRICANE DESIGN STANDARDS

The Proposed Project meets the requirements of the International Building Code (2012) design standards. Shedrick Coleman, State of Georgia Registered Architect, has certified that the Proposed Project meets all applicable hurricane standards (See architectural drawing attached as Exhibit F).

This SPA application is respectfully submitted this 30th day of Nov., 2018 by the undersigned.



Stephen S. Friedman



Annette N. Friedman

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Flood Calculation

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$$Sq' \times X' = Cu' \text{ of WATER}$$

$$X = \frac{Cu' \text{ of WATER}}{Sq' \text{ of LOT}}$$

Lot = 60x80

$$2 - 100 \text{ GAL/M Pumps} = 2 \times 100 \times 60 \text{ MIN} = 12,000 \text{ GAL/hr}$$

$$\frac{12,000 \text{ GAL/hr}}{7.48 \text{ GAL/cu'}}$$

$$= 1,604 \text{ cu. ft}$$

$$\frac{1604 \text{ cu'}}{4800 \text{ Sq'}} = .33'$$

$$.33' \times \frac{12''}{\text{ft}} = 4''$$

NOTE: 1 cu' of Liquid = 7.48 GAL
Standard Lot 60x80 = 4800 Sq'

CONCLUSION: 2-100 gal/min Pumps on A Lot
60x80 will handle a Rain Storm of
4"/hr. Factor 25% = 3" RAIN STORM
Should be no problem

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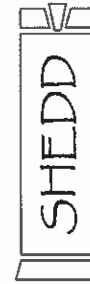
TO: Karl Burgess
FROM: Stephen and Annette Friedman
RE: Friedman SPA Application -#2 8th Place, Tybee Island, GA 31328
DATE: December 19, 2018

As you requested, following is a comprehensive summary of the areas impacted by the activities contemplated in our SPA application. This is intended to clarify any minor discrepancies that may appear to be present in our application documentation.

Size of Total Property	9,012 sq. ft.
Size of Jurisdictional Area	8,976 sq. ft.
Historically Impacted Area (house, stairs, outdoor shower, driveway, low retaining wall)	2,881 sq. ft.
Phase 1 Impacted Area (paver walkway, pump pits (2), fence posts)	350 sq. ft.
Phase 2 Impacted Area (generator and propane tanks, non-structural toe-of-dune demarcation wall)	129 sq. ft.
Phase 3 Impacted Area (screen porch)	559 sq. ft.
Total Impacted Area (Historical plus Phases 1-3)	3,919 sq. ft.
% of <u>Total Lot</u> Permanently Impacted	43.48%
% of <u>Jurisdictional Area</u> Permanently Impacted	43.66%
% of <u>Jurisdictional Area</u> NOT Impacted	56.34%

Please let us know if we can provide any additional information. Thank you.

SHEDDarchitecture



to Listen to Solve..... to Evolve
6 Iron Horse Spur Savannah, Georgia 31419
912-925-1300 912-712-5157 (fax)
www.SHEDDarchitecture.com

September 7, 2018

Mr. Stephen Friedman
2 8th Place
Tybee Island, GA 31328

Re: Dune Encroachment Structural Review

Dear Mr. Friedman,

Having visited your residence located at the address noted above to assess the condition of the existing beach dune located immediately east of the structure, I have the following observations for your consideration.

Based upon the current location of the dunes, it is highly probable that during a hurricane event, the dunes will migrate west against your residence due to wave action. Such action will produce forces upon the facing structure that will in all probability exceed the resistance of the wall. I have reviewed the original design documentation for the residence provided by you and used such in reaching my determination of the risk the dunes pose to your residence. The chief issue being the existence of a continuous foundation footing in lieu of a pier foundation that would have provided the ability for the dunes to migrate between the piers. The continuous wall will not provide adequate ability to relieve the pressure of the sand and water during storm event due to the immediate proximity of the dune.

By creating a greater distance between the dunes and the residence, the possibility for the dune's movement during a storm to dissipate will be enhanced and lessen the danger to the structure.

Please contact me if you have any further questions.

Sincerely,

W. Shedrick Coleman, AIA
Principal
SHEDDarchitecture



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MAYOR
Jason Buelterman

CITY COUNCIL
Barry Brown, Mayor Pro Tem
Wanda Doyle
John Branigin
Monty Parks
Julie Livingston
Shirley Sessions



CITY MANAGER
Shawn Gillen

CITY CLERK
Janet LeViner

CITY ATTORNEY
Edward M. Hughes

CITY OF TYBEE ISLAND

October 12, 2018

Mr. Karl Burgess
GA Dept. of Natural Resources, Coastal Resources Division
One Conservation Way, Suite 300
Brunswick, GA 31520

Re: Friedman property
2 8th Place
Tybee Island, GA 31328

Dear Mr. Burgess:

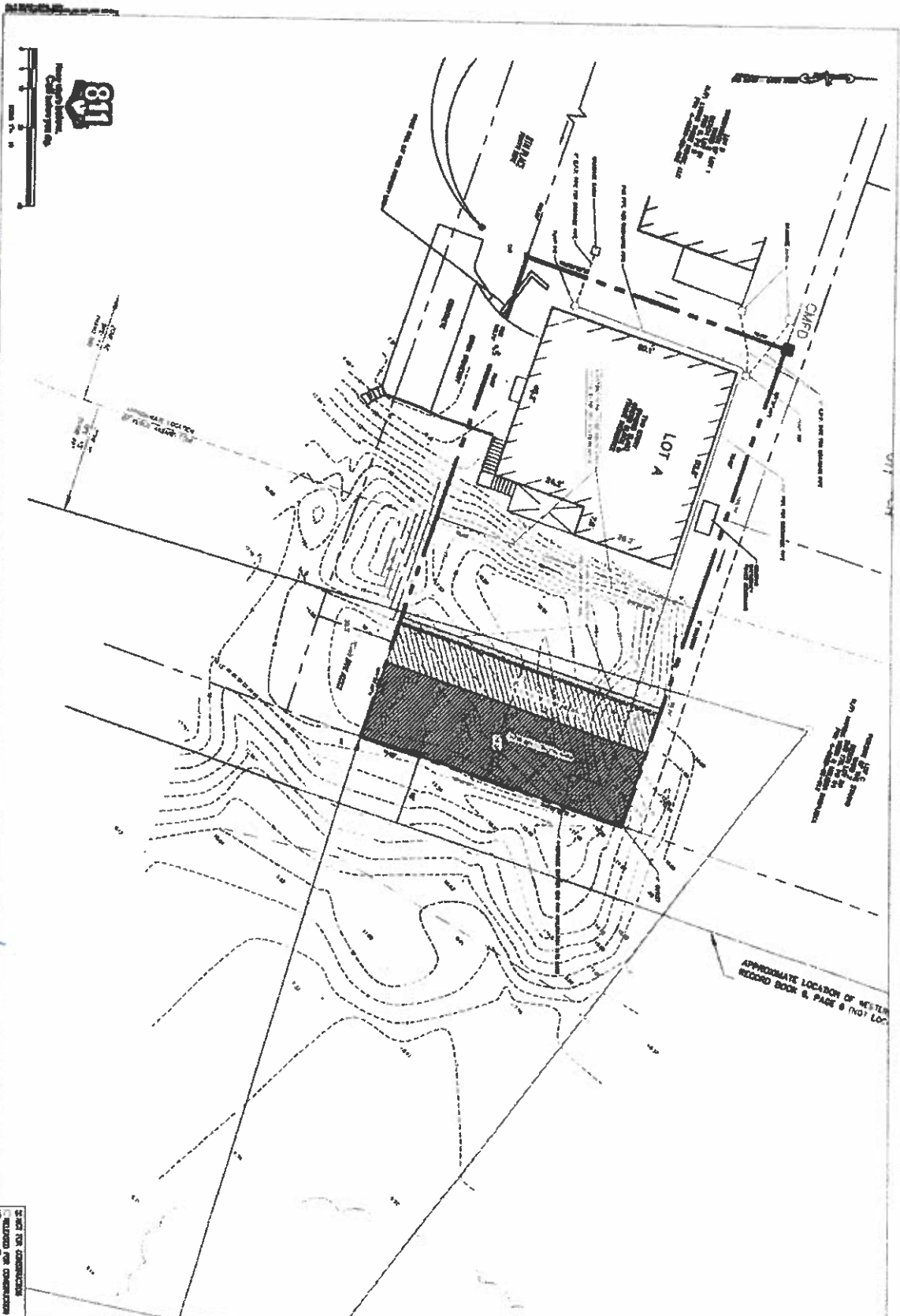
The Friedman property located at 2 8th Place (PIN # 4-0006-02-001) on Tybee Island is located in the R-2 zoning district. The construction requested is allowed in this district. City Council has approved by Special Review Mr. Friedman's request to move the dune material from behind his home. No work may commence until all required Federal and State permits have been granted.

Sincerely,

George Shaw
Community Development Director
gshaw@cityoftybee.org
912-472-5031

P.O. Box 2749 – 403 Butler Avenue, Tybee Island, Georgia 31328-2749
(866) 786-4573 – FAX (866) 786-5737
www.cityoftybee.org

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As approved by Tybee Island City Council October 11, 2018

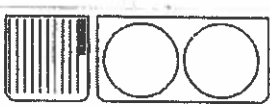
Age 8 [unclear]

Community Development Director

SCALE FOR CONSTRUCTION
INDICATED PER CONSTRUCTION

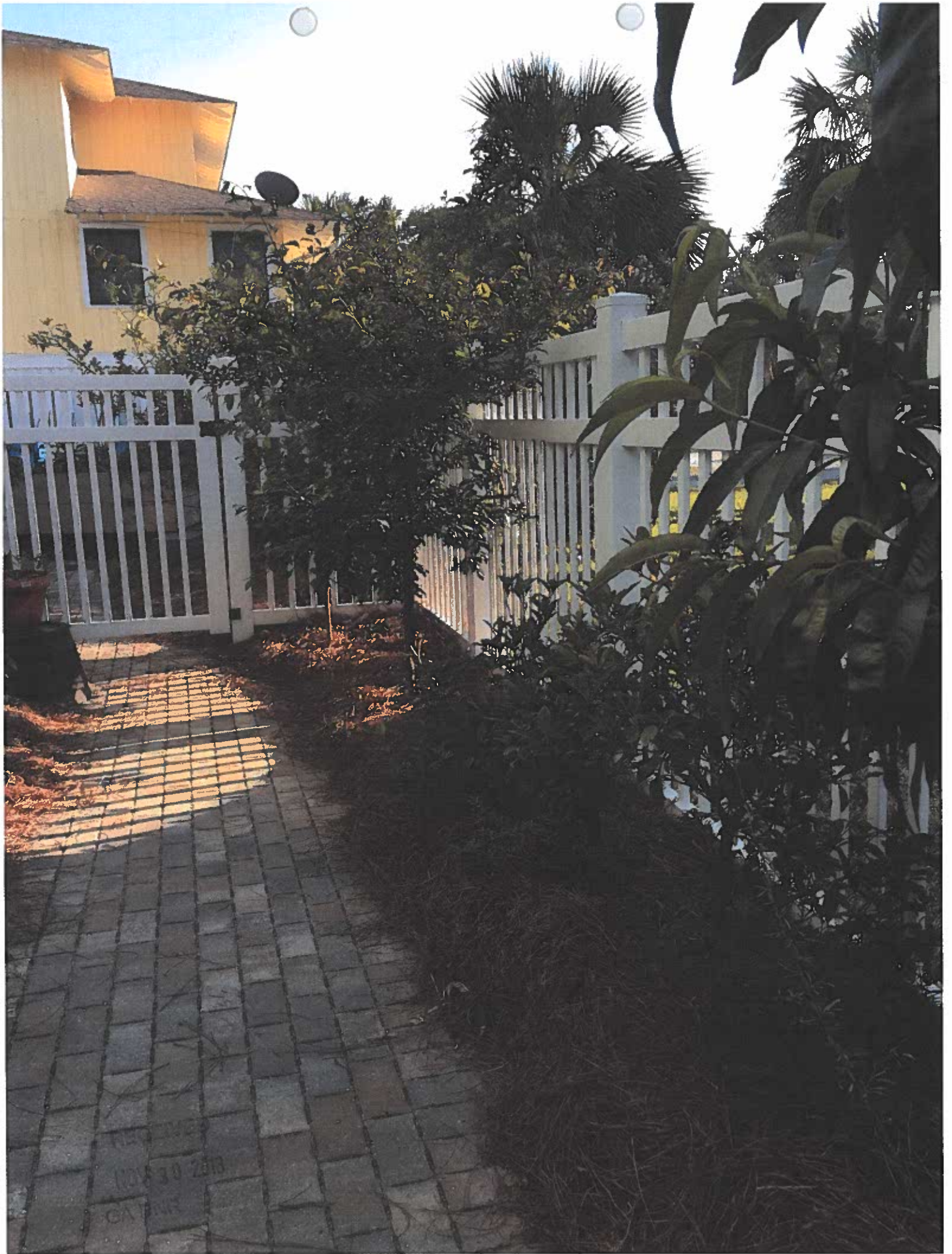
DATE: 02/08/18
DRAWN: P. J. [unclear]
CHECKED: M. [unclear]
CITY OF TYBEE ISLAND
ENGINEERING DEPARTMENT

AN INSET OF LOT A, IN SECTION (POWER SERVICE) AND A PORTION OF THE ATLANTIC OCEAN, BEING A SUBDIVISION OF LOT 1, BEING LOT B, THIRD THIRD, 100 OAK STREET, TYBEE ISLAND CHATHAM COUNTY, GA

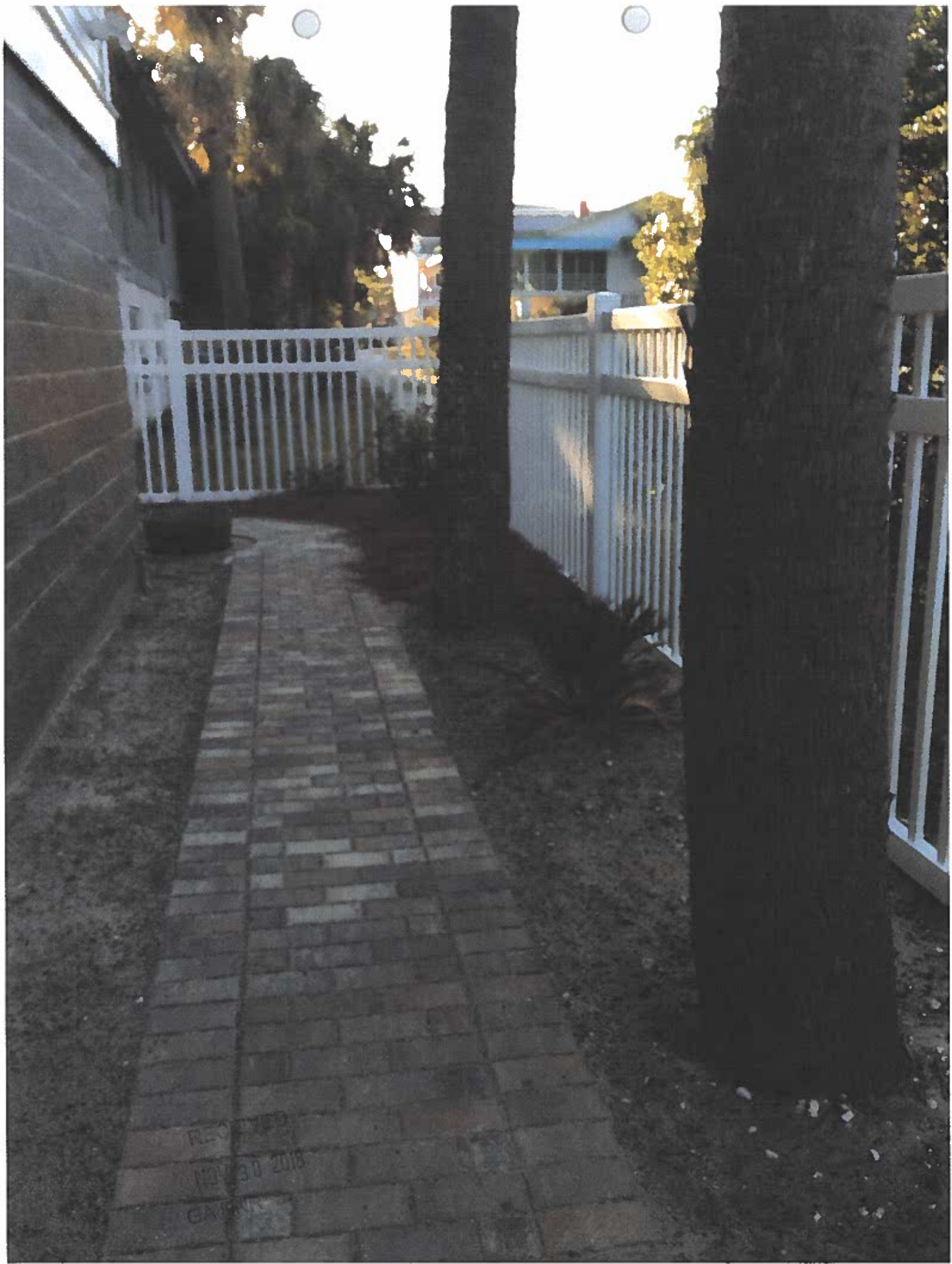


COLEMAN COMPANY, INC.
117 PARKWAY FERRIS, GA 31505
 PHONE: 706.336.2200
 WEBSITE: WWW.COLEMANCO.COM

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 NOV 30 2018
 GA DNR




NOV 30 2013
CA 94115



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JUL 30 2013
GAINES



**GEORGIA**
DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 5, 2018

Stephen S. and Annette M. Friedman
P.O. Box 2319
Tybee Island, GA 31328

RE: Shore Protection Act (SPA), Jurisdictional Determination Verification, #2 8th Place, Lot 51 Extension (Former Strand), and a Portion of the Atlantic Ocean, Being a Subdivision of Lot 1, Beach Lot 51, Ward Two, 5th G.M. District, Tybee Island, Chatham County, Georgia

Dear Mr. and Mrs. Friedman:

Our office has received the survey, dated August 31, 2018, prepared by Terry Mack Coleman, P.C. No. 2486 entitled, "*Lot 51 Extension (Former Strand), and a Portion of the Atlantic Ocean, Being a Subdivision of Lot 1, Beach Lot 51, Ward Two, 5th G.M. District, Tybee Island, Chatham County, Georgia.*" Based on my site inspection, this plat and survey accurately depict the landward toe of the dune and the Jurisdictional Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as delineated by the Department on August 31, 2018.

The delineation of the parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from the date of delineation. It will normally expire August 31, 2019, but may be voided should legal and/or environmental conditions change. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. Please contact me at (912) 262-3133 if you have any questions.

Sincerely,



Karl Burgess
Assistant Director

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SEP 30 2018
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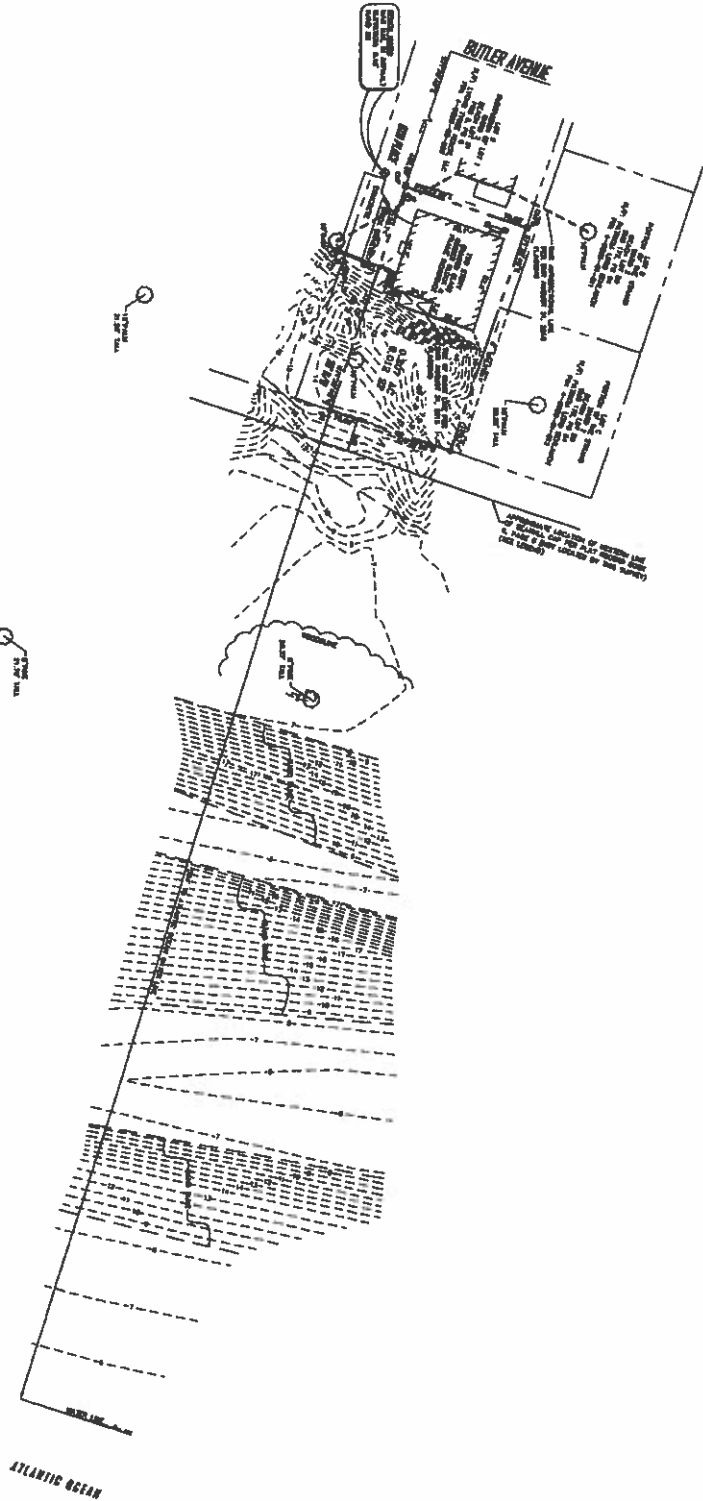
Enclosure: *Lot 51 Extension (Former Strand), and a Portion of the Atlantic Ocean, Being a Subdivision of Lot 1, Beach Lot 51, Ward Two, 5th G.M. District, Tybee Island, Chatham County, Georgia*

File: JDS20180260



- UTLITIES PROTECTION CENTER
- CALL STREET NUMBER DATES
- REPORT TO US
- 3000 WOODRUFF DRIVE
- 1-404-262-7411

UTLITIES PROTECTION CENTER
CALL STREET NUMBER DATES
REPORT TO US
3000 WOODRUFF DRIVE
1-404-262-7411
NOT FOR CONSTRUCTION FOR
PERMITTING PURPOSES ONLY



NOTICE TO CONTRACTOR: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES OF ANY WORK TO BE DONE IN THEIR SERVICE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL UTILITIES TO ORIGINAL CONDITION OR BETTER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES OF ANY WORK TO BE DONE IN THEIR SERVICE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL UTILITIES TO ORIGINAL CONDITION OR BETTER.

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ASPECT RATIO 0.75/0.75
SCALE 1"=50'
GRAPHIC SCALE 1"=50'

DATE: 8-24-2018
SCALE: 1"=50'
JOB #: 14-750100
DRAWN BY: JAM
CHECKED BY: JAM

AN EXHIBIT OF LOT 51 EXTENSION (FORMER STRAND),
AND A PORTION OF THE ATLANTIC OCEAN, BEING A SUBDIVISION
OF LOT 1, BEACH LOT 51, WARD TWO, 5TH G.M. DISTRICT,
TYBEE ISLAND, CHATHAM COUNTY, GEORGIA
PREPARE FOR: [REDACTED]

COLEMAN COMPANY, INC.
47 PARK OF COURTESY | SUITE 200
SARASOTA, FL 34236
(813) 555-8844 | (941) 555-8844