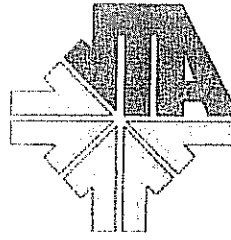


Jacksonville Transportation Authority  
 F.I.N.D. Mitigation Site  
 Spoil Mound Management Options

MANAGEMENT OPTIONS

NO.	DESCRIPTION	APPROXIMATE COST	ADVANTAGES	DISADVANTAGES
A.	Leave Site in Current State	None	Minimum Cost	1. Mound subject to erosion. 2. Leaves mound in least attractive state. 3. The mound remains.
B.	Remove Spoil	\$250,000+ to \$350,000+	1. Eliminates continued concerns on management of mound. 2. No continued maintenance issues. 3. Increases marsh mitigation acreage.	1. Additional permitting required. 2. Very high cost (outside available funds). 3. Could lead to additional damage to marsh.
C.	Grassing	\$5,000 to \$7,000	1. Controls erosion. 2. Enhances appearance; mound is at least 'green' in appearance. 3. Minimal Cost (JTA has funds available for this level of effort).	1. Site still subject to having a 'brown' appearance in winter. 2. Some winter time seeding possibly needed. 3. The mound remains.
D.	Grassing & Enhanced Landscaping	<del>\$50,000+/- to \$150,000+/-</del> Plant identification and improved estimate in process	1. Mound quickly takes on an island 'natural' look and more attractive. 2. Enhances wildlife habitat. 3. Side slopes become much more stable.	1. Much higher cost than just grassing (outside available funds). 2. Plantings subject to high mortality rate. 3. The mound remains.

# MEMORANDUM



**ENGINEERING  
DESIGN  
MANAGEMENT**

**To:** John T. Davis, P.E., P.S.M.

**From:** Robert Franques, P.E.

**Date:** March 31, 2010

**Project:** FIND Mitigation Site  
**Project No:** 91MS01

**Re:** Progress Update

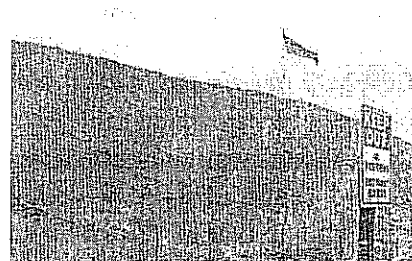
## EXECUTIVE SUMMARY



Recent reviews of the FIND mitigation site spoil mound have established that the site is currently in compliance with the applicable permits, according to the U.S. Army Corps of Engineers and the St. Johns River Water Management District. The mound is currently stable with minimal erosion. There is noticeable evidence of foot traffic up and down the mound. A review by Risk Management indicates that JTA has some liability but no more than with any other property owned by JTA. The spoil mound at the FIND mitigation site has proven to be

problematic in the establishment of vegetation with most of the grass established last year appearing to have succumbed to this last harsh winter and unusually high foot traffic.

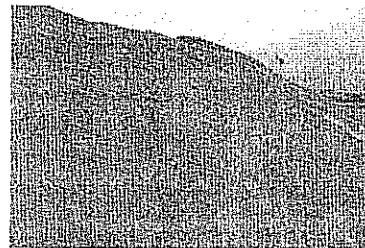
No trespassing signs have been placed around the spoil mound to dissuade further use of the mound by non-JTA personnel. JTA has obtained prices for additional grassing efforts on the slopes of the mound. As yet, there does not appear to be any need for further grading along the slopes to correct for erosion.



JTA Engineering is identifying trees, shrubs, and ground cover that could be planted on the site to stabilize erosion and visually enhance the site. Plans are to replace the grassing on the site for short-term stabilization and to develop a planting plan for long-term stabilization. JTA could finalize identification of the potential plants and allow the City of Neptune Beach to hold a Community Meeting to obtain citizen input on what plants to place. If the City wishes, JTA could make planting of the plants a community weekend project. To complete those efforts, JTA Engineering plans to:

1. As soon as possible, contract with ERS to have the mound seeded with quick growing grass. ERS has recommended putting in a 'brown top millet' as an immediate step towards getting the side slopes stabilized.
2. Contact several nurseries in the vicinity of the beaches to get suggestions on a planting scheme, suggested plant types and prices to furnish and install the plants.
3. Produce some exhibits that show the various plantings recommended for the mound.
4. Meet with citizens from Neptune Beach to discuss the available plantings, their desires and how the City of Neptune Beach might proceed in funding the installation of the enhanced landscaping.
5. As an additional follow up, JTA staff will contact the UF IFAS center and the Florida Department of Natural Resources to see if they have any further recommendations on suitable plantings.

**However, in order to help stabilize the site, the flag pole needs to be moved in the very near-term future.** Quite a bit of damage is occurring to the grassed/stabilized areas from people climbing the hill to the flag pole.



## BACKGROUND

The FIND Mitigation site was completed to provide salt water mitigation for salt marsh impacts associated with the Wonderwood project (as built drawing attached as Attachment A). The site is located just south of the Atlantic Boulevard ICWW bridge on the east bank of the ICWW. Both U.S. Army Corps of Engineers (ACOE) and St. Johns River Water Management District (SJRWMD) permits (SJRWMD Permit No. 4-031-106269-1) were obtained to provide this site as mitigation for those wetland impacts. The permits obtained required JTA to lower the elevation of an existing Florida Inland Navigation District (F.I.N.D.) spoil site used

to deposit dredge materials from the Intracoastal Waterway.



The new elevation would match the elevation of surrounding spartina marsh. The permit allowed that the material excavated could be “mounded” up on the same site with the foot print of the spoil then being considerably less and thus increasing the area available for spartina marsh propagation. The ACOE and SJRWMD also required JTA to establish spartina on the portions of the site lowered to marsh level.

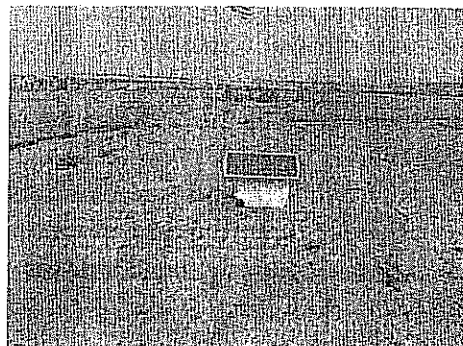
The JTA completed the earthwork effort in 2009. A first attempt and planting spartina was made, with none of those plantings surviving. A second effort is being planned with larger plugs. The seeds of two different types of grass were broadcast across the island (mound) last year. One was a quick growing annual, intended to both quickly stabilize the slopes and change the appearance of what otherwise would have been a brown spoil pile (both of which it did). The other was a perennial, intended to persist on the island until displaced by natural plant succession. Presuming that the perennial grass survived the winter, the island will become green again at about the same time as lawns in the area. The seed initially took, and an extensive amount covering about 70% of the mound germinated and rooted before eventually dying off in this last winter season. The permit allows the JTA about four years to substantially establish the mitigation area with spartina. Once the area has been vegetated per the permit, then the SJRWMD permit requires that the JTA record a ‘Conservation Easement’ over the entire site to the benefit of the SJRWMD to restrict any use of the site and allow it to remain undisturbed in perpetuity.

The contractor used by JTA to do the re-grading of the site had provided the JTA with a price to do the grading and removal of the spoil. Spoil removal from the site by barge (the ACOE denied the permit application for a temporary haul road across the marsh area to Atlantic Blvd) was estimated at about \$350,000 and the grading at about \$700,000. The JTA did not opt for the removal expense but to proceed as permitted and mound the spoil up and stabilize the slopes.

The mound itself is a loose loamy sand with little organic material. About 23,000 cubic yards of this material is in the mounded spoil. Situated in the marshes of the Intracoastal Waterway, it is subject to considerable amounts of salt laden water aerosols from winds. There is no readily available fresh water source to the site. Due to the configuration and soil in the mounded spoil material, the soils will retain little to no moisture from rainfall.

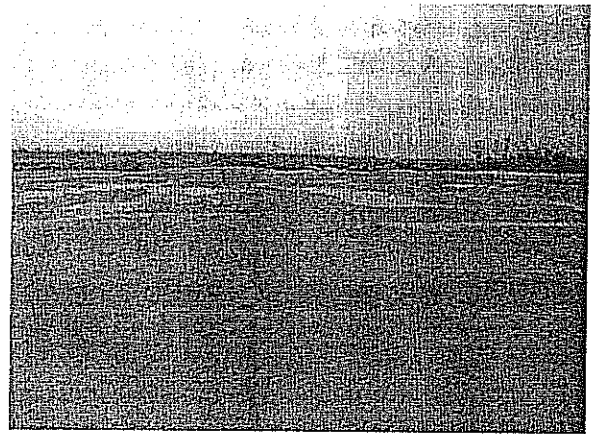
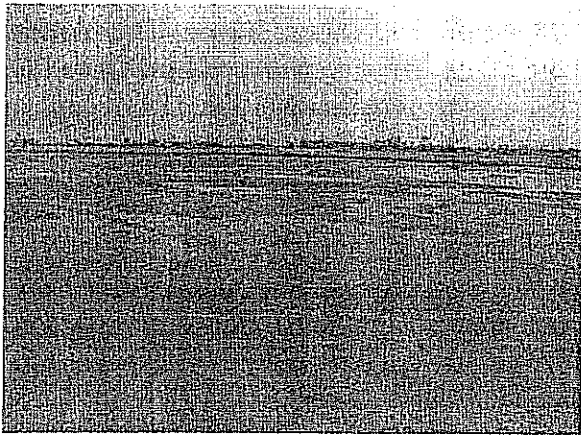
#### RECENT OBSERVATIONS

Engineering Staff from the JTA went to the site to make some current observations on March 16, 2010. The Jacksonville Fire Department has erected a flag pole, upright and solar powered batteries on the top of the mound. Considerable foot traffic is also evident on the mound.





About 60 percent of the grass established last year appears to have rooted, but has also been torn up from foot traffic on the slopes. All of the grass appears dead, though some might only be dormant from this past winter. Some minor amount of erosion is evident along the slopes. None of the spartina plantings appear to have survived and the mitigation area itself is largely devoid of any vegetation or muck. Bulleted detailed observations are as follows:



- \* The spoil pile is almost entirely denuded of any vegetation. What little is on it, is dead.
- \* The soils making up the spoil pile are pure sand, with very little nutrient mixed into them.
- \* There are evident signs of erosion on the spoil pile
- \* The toe of the spoil pile is starting to get undercut from high tide water action on it.
- \* Just about all of the planted spartina failed, leaving the wetland creation area completely barren.
- \* A number of sediment deposition spots have accumulated around in the marsh creation area.
- \* There is a flag pole set up on the top of the pile with an attempt at an uplight. A homemade power station using a cooler, two car batteries and a small solar panel array has been set up to power the light (on top of the hill near the flag).
- \* A lot of the sedimentation controls remain around the site in considerable disrepair.
- \* It looks like the site can very easily be accessed by boat from the intracoastal. I found it very easy to walk up to the edge of the open water, whereas getting there across the marsh was very difficult, due to deep muck.
- \* The area where the temporary access road was still very evident and easy to walk.
- \* There is evidence of an impressive amount of foot traffic all over the spoil pile. I found that my own effort to walk up along the slopes tore at what little grass had rooted to the point of tearing the grass out by the roots.

It appears that the spoil mound will be extremely difficult to stabilize against erosion. Getting upland grasses to grow there will be challenging due to the lack of fresh water, nutrients in the soils, and the high chloride content in the environment around the spoil pile. Even the Atlantic Boulevard roadway embankments along the causeway approaching the Intracoastal bridge looked in bad shape, and the soils used there appeared to have a much higher amount of nutrient laden soils mixed in. What seems to be doing well along the roadway embankments are a number of shrubs.

#### LIABILITY REVIEW

Mr. Joe Lewis went out to look at the site and was asked to comment on any liabilities that JTA might be exposed to with the site in its current condition. The questions put to Mr. Lewis and his responses are as follows:

Does this site create a liability for JTA? Yes, in general we have a liability associated with any property that JTA owns.

Should JTA insure the spoil pile or is it covered under JTA's general liability? JTA is self insured and does not carry a general liability policy, and no its not recommended to obtain liability insurance for this site, as it doesn't represent any special kind of liability beyond any other exposure that JTA has on other facilities.

Engineering has proposed to put up 4 "no trespassing" signs, is this enough? Posted signs should be spaced no more than 500 feet apart.

Anything else we should do to keep people out? Joe didn't have any recommendations at this time, though he stated in a previous email that we might fence the area. The salt water environment here seems so aggressive and access to the site so difficult that any fencing may well deteriorate quickly and be difficult to maintain.

What's our general exposure? I believe Joe has represented to me that the site is an attractive nuisance adding no particularly unique risk beyond any other facility JTA might own. Its simply just another place for something to happen.

#### TRANSFER OF PROPERTY OWNERSHIP TO SJRWMD

JTA staff put in an application for property transfer to the SJRWMD. A copy of that application is attached (Attachment B). The SJRWMD rejected the site as a candidate for their land acquisition program as it is not contiguous to lands the agency currently owns.

#### COMPLIANCE REVIEW

The SJRWMD visited the site with ERS on January 26, 2010 and found the site to be in compliance with their permit. The ACOE has issued a statement that the site is in compliance with the permit.

Some additional tasks remain to fulfill the terms of the permits, such as establishing the spartina, keeping the spoil mound stabilized and eventually recording the Conservation Easement.

Regarding the selection of enhanced plantings on the spoil mound, as long as native species are used the agencies will not have any issues. Enhanced paths to the 'memorial' and around the site will not be consistent with the terms of the Conservation Easement.

#### REVIEW BY TOM WEBER

I spoke with Tom Weber on March 11, 2010 and obtained a summary of his ideas for the spoil mound:

1. He needs as-built drawings
2. He thinks the slopes are too steep
3. He doesn't see a problem with the flag memorial itself
4. He thinks the flag site is an attractive nuisance, but could still be incorporated into workable with some physical improvements on the island
5. He is desirous of reshaping the mound and thinks he can mobilize equipment to it.
6. He's looking at planting xeriscape plants with different colors
7. His ideas would involve some additional damage to the saltwater plantings that would need to be repaired.
8. He doesn't agree with the idea of grassing.
9. He thinks the would be around \$50k at the lowest
10. He thinks the work, including the earthwork, would run it up to about \$200k.
11. He has observed a significant number of people going out to the site to go up and down the mound.
12. He envisions a trail switchback going up along the slope.
13. He's tossing out the idea of getting Ander Crenshaw to support funding to make the site a better memorial site.
14. Or, get some private funding that would turn the site into a community park.

Some of his ideas would not be permissible per the ACOE and SJRWMD permits, which was relayed to him. I also informed him that the JTA budget would be limited to under \$10,000. On March 29, 2010, I spoke with him again and after his review he could not see anything he could provide other than basic grassing for the budget and permit terms provided. He further stated that he would likely withdraw his interest in assisting with the efforts.

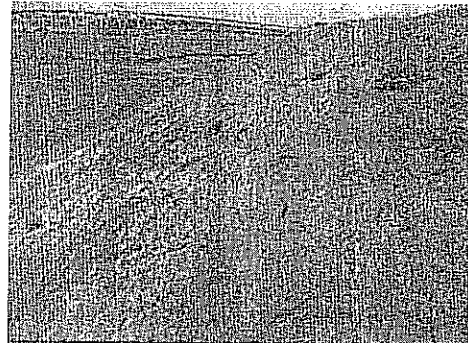
#### ADDITIONAL QUOTES TO REMOVE SPOIL

Jon Detlef – Mr. Detlef and Mr. Moody have carefully examined the site and indicated they could remove all of the spoil for about \$350,000. Subsequently, they were asked to provide a cost for removing only a portion of the "Hill" (the top 5 ft. and the top 10 ft.). They advised the cost of removing the top 10+ ft. would be about \$250,000.

Sue Carstens, Southern Development Corp. – Ms. Carstens advised the project was more difficult than they envisioned at first and estimated the cost of removal of the spoil to be approximately \$700,000.

#### TEMPORARY AND PERMANENT GRASSING

ERS provided a proposed work order (Attachment C) for grassing the spoil mound. ERS has provided a lump sum price of \$2,800 for an immediate application of the Quick Grow Grass (millet) and \$1,500 for a June application of the Perennial Grass (Pensacola Bahia). It should be noted that these prices are not for hydro seeding. Please read the ERS proposal for more information (Attached).



It appears that the prices in the work order are incorrect and should be switched. This is based on our understanding that the Bahia seed is more expensive than the quick grow seed and the permanent application is at 222lbs/acre where the quick grow is at 111lbs/acre. If we do not proceed with ERS on this effort, JTA staff will remind Onas to submit a cost proposal (A cost proposal was also sought from Onas, the project contractor).

#### ENHANCED PLANTINGS

JTA has collected information on a wide variety of plant lists to help in selecting plantings to further enhance to appearance of the spoil mound. The list is being refined to choose those plants which will best survive the conditions on the spoil mound, fall within modest costs to furnish and install, and add to a more attractive appearance of the site. All plants chosen must be native to the area in order to satisfy the SJRWMD and ACOE.

Attached is an extensive listing of plants recommended by ERS (Attachment D) and an even larger list of potential plants that could be used (Attachment E). All are suitable for Florida in general. JTA staff has already culled through some of the list and highlighted in yellow what plants appear to have the greatest potential for survival.

# ATTACHMENT A



# ATTACHMENT B

**Robert T. Franques**

---

**From:** Ray Bunton [RBunton@sjrwmd.com]  
**Sent:** Monday, March 29, 2010 3:49 PM  
**To:** Robert T. Franques  
**Subject:** RE: FIND Site - Request to Transfer Land to SJRWMD

Mr. Franques:

Thank you for submitting the information about land owned by JTA. We have had an opportunity to prepare some maps of the property and review this with other staff here at the District. This parcel does not appear to be located adjacent to other District or public owned land and would be very difficult for the District to manage. Because of this, District staff would not recommend acceptance of the fee simple interest in this property. Thank you again for your offer.

Raymond B. Bunton Jr.  
Director, Division of Land Acquisition  
Office: (386) 329-4335  
Fax: (386) 329-4848  
Cell (386) 937-0551  
rbunton@sjrwmd.com

---

**From:** Robert T. Franques [mailto:RTFranques@jtafla.com]  
**Sent:** Tuesday, March 23, 2010 2:11 PM  
**To:** Land Acquisition  
**Cc:** Hamid Tabassian; John T Davis  
**Subject:** FIND Site - Request to Transfer Land to SJRWMD

To whom it may concern:

Please find a "Land Acquisition Application" from the JTA for a site owned by the Authority along the intracoastal waterway in the marshes. The JTA is looking to transfer the ownership in fee simple.

Please contact me if you have any questions or require additional information.

Robert T. Franques, P.E.  
Project Manager - JTA Engineering  
Email: rtfranques@jtafla.com  
Phone: (904) 630-3135

<<SJRWMD Land Acquisition Application.pdf>>

We are JTA, an independent state agency committed to providing effective and efficient transportation solutions for our growing region through roads and public transit options.  
Part of your day. Part of your community. Part of your life.



# St. Johns River Water Management District

Division of Land Acquisition • 4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429  
(386) 329-4335 • Fax: (386) 329-4848

## Land Acquisition Application

Section 373.139 F.S., authorizes the St Johns River Water Management District ("District") to acquire property rights necessary for water resource protection. If a parcel fulfills any of the requirements, the District may consider it for inclusion in its land acquisition plan. To aid in evaluating the proposal, please provide the information requested below.

Return this form and attachments the address listed above or email to: [LandAcquisition@sjrwm.com](mailto:LandAcquisition@sjrwm.com)

<b>1. Applicant Information</b>					
Applicant Name: Jacksonville Transportation Authority					
Address: 100 N. Myrtle Ave					
City: Jacksonville		State: FL		Zip: 32203	
Phone:		Fax:		Email: rtfranques@jtafla.com	
Applicant Signature:			Date:		
<b>2. Owner of Record</b> (Owner Is Applicant Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> )					
Name:			Name: Robert T. Franques		
Address:			Address: 100 N. Myrtle Ave.		
City:		State:	Zip:	City: Jacksonville	State: FL
Phone:		Fax:	Phone: 904-630-3135	Zip: 32203	
Email:			Email: rtfranques@jtafla.com		
<b>3. Owners Authorized Representative</b>					
Name:			Name: Robert T. Franques		
Address:			Address: 100 N. Myrtle Ave.		
City:		State:	Zip:	City: Jacksonville	State: FL
Phone:		Fax:	Phone: 904-630-3135	Zip: 32203	
Email:			Email: rtfranques@jtafla.com		
<b>4. Owner's Authorization</b>					
<b>To the Governing Board of the St. Johns River Water Management District:</b>					
This is to advise that the individual named above is the Authorized Representative of the owner(s) of the property described below. This authorization is for any negotiations concerning conveyance of the property to the St. Johns River Water Management District.					
Owner Signature:			Date: 3-23-10		
Owner Signature:			Date:		
<b>5. Property/Project Information</b>					
Asking Price: \$0			County: Duval		
General Location (address, intersection, etc.): Intracoastal Waterway south of Atlantic Blvd Bridge					
Acreage: 28.70			Section/Township/Range: 19-2S-29E		
Tax Parcel Number(s) (if known) 172390-0100					
Future Land Use (if known) Conservation			Zoning (if known) n/a		
<b>6. Property Description</b> (Describe the property's ecological significance and natural resources)					
The property is restored tidal marsh immediately adjacent to the intracoastal waterway in Neptune Beach					
<b>7. Encumbrances</b> (List any liens, leases or other encumbrances)					
St. Johns River Water Management District Conservation Easement (to be recorded) Subject to completion of spartina planting pursuant to Permit No. 4-031-106269-1					

Optional: In addition to this form, the following supplemental information may be attached to assist in the evaluation of the property.

- Location map
- Survey or Sketch
- Legal description
- Parcel Cards
- Deed
- Other pertinent information

*Please Do Not Write Below this Line, for District Use Only*

Date Received: \_\_\_\_\_

Received By: \_\_\_\_\_

Basin: \_\_\_\_\_

**JACKSONVILLE TRANSPORTATION AUTHORITY**  
 100 N MYRTLE AVE  
 JACKSONVILLE, FL 32204-1310

**Primary Site Address**  
 0 ATLANTIC BLVD  
 Neptune Beach FL 32266

**Official Record Book/Page**  
 11561-00515

**Title**  
 #  
 9419

**0 ATLANTIC BLVD**

**Property Detail**

RE #	172390-0100
Tax District	USD4
Property Use	8600 COUNTY
# of Buildings	0
Legal Desc.	
Subdivision	00000 SECTION LAND

**Value Summary**

	2009 Certified	2010 In Progress
Value Method	CAMA	CAMA
Building Value	\$0.00	\$0.00
Extra Feature Value	\$0.00	\$0.00
Land Value (Market)	\$4,879.00	\$4,879.00
Land Value (Agric.)	\$0.00	\$0.00
Just (Market) Value	\$4,879.00	\$4,879.00
Assessed Value (A10)	\$4,879.00	\$4,879.00
Exemptions	\$4,879.00	See below
Taxable Value	\$0.00	See below

The sale of this property may result in higher property taxes. For more information go to [Save Our Homes](#) and our [Property Tax Estimator](#). Property values, exemptions and other information listed as 'In Progress' are subject to change. These numbers are part of the 2010 working tax roll and will not be certified until October. [Learn how the Property Appraiser's Office values property.](#)

**Taxable Values and Exemptions – In Progress**

If there are no exemptions applicable to a taxing authority, the Taxable Value is the same as the Assessed Value listed above in the Value Summary box.

**County/Municipal Taxable Value**

Assessed Value	\$4,879.00
Jacksonville Expressway (91B)	- \$4,879.00
<b>Taxable Value</b>	<b>\$0.00</b>

**SJRWMD/FIND Taxable Value**

Assessed Value	\$4,879.00
Jacksonville Expressway (91B)	- \$4,879.00
<b>Taxable Value</b>	<b>\$0.00</b>

**School Taxable Value**

Assessed Value	\$4,879.00
Jacksonville Expressway (91B)	- \$4,879.00
<b>Taxable Value</b>	<b>\$0.00</b>

**Sales History**

Book/Page	Sale Date	Sale Price	Deed Instrument Type Code	Qualified/Unqualified	Vacant/Improved
11561-00515	12/12/2003	\$100.00	QC - Quit Claim	Unknown	Vacant
11561-00513	12/12/2003	\$100.00	QC - Quit Claim	Unknown	Vacant

**Extra Features**

No data found for this section

**Land & Legal**

**Land**

LN	Code	Use Description	Zoning	Front	Depth	Category	Land Units	Land Value
1	9612	SALT WATER MARSH	NCON	0.00	0.00	Common	28.24	\$4,801.00
2	9612	SALT WATER MARSH	NCON	0.00	0.00	Common	0.46	\$78.00

**Legal**

LN	Legal Description
1	19-2S-29E 28.70
2	PT UNSURVEYED RECD O/R 11561-513

**Buildings**

No data found for this section

**2009 Notice of Proposed Property Taxes (Truth in Millage Notice)**

**Property Record Card (PRC)**

The Property Appraiser Office provides available historical record cards (PRC). The Property Appraiser's Office no longer uses PRCs; therefore, there will be no PRCs available from 2006 forward. You must set your browser's Page Set Up for printing to Landscape to print these cards.

[2005](#) | [2004](#)

**More Information**

[Parcel Tax Record](#) | [GIS Map](#) | [Map this property on Google Maps](#)

# ATTACHMENT C



16 March 2010

Mr. Larry Wehner, P.E.  
Jacksonville Transportation Authority  
100 North Myrtle Avenue  
Jacksonville, FL 32203

**RE: FIND Island, Grass Seed Planting  
ERS Contract No. P10044**

Dear Mr. Wehner:

Environmental Resource Solutions, Inc. (ERS) is pleased to submit the attached contract to the Jacksonville Transportation Authority (JTA). The project site is the 0.9 acre  $\pm$  FIND Island situated approximately 250' east of the Atlantic Intracoastal Waterway, approximately 1,000' south of the Atlantic Boulevard causeway. The contract entails ERS spreading a quick grow grass seed in the near-term and spreading the seed of a perennial grass in early to mid June.

A number of planting options were considered and ultimately eliminated as part of the process of selecting the two-time seed spreading specified in the contract. Two of them are briefly summarized as follows:

1. Hydro-seeding. The smallest (and therefore most transportable) hydro-seeding unit that we could find is pullable by an ATV and has a 50-gallon tank that covers 650 square feet/tank. Using 0.9 acre as the plantable area, sixty 50-gallon tanks would cover the island. At about 8.5 lbs/gallon, the required three thousand gallons of water weighs 25,500 lbs. Transporting this amount of water to and around FIND Island is, in our opinion, prohibitively problematic.

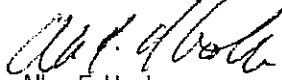
2. One-time seed spreading. Spreading a combination of quick grow grass seed and perennial grass seed has the obvious advantage of a single effort. Disadvantages include competition for light, water and nutrients; a higher percentage of the perennial seeds washing away (before the quick grow seeds germinate); and the fact that this approach apparently did not work in 2009. With successful establishment of perennial grass the priority, ERS judges one-time spreading inferior to two-time spreading.

As you are aware, the successful establishment of the quick grow grass(es) in the next few weeks faces two challenges. First, even though the mound's side slopes are textured, an unknowable percentage of the seed will be carried away by wind and during rain events. ERS will lightly rake the soil to reduce this seed loss. Second, given that April and May are historically the driest months, seed germination could be low and survivorship of germinated seeds likewise.

Please call us with any questions/comments regarding the contract and/or the pending effort.

Sincerely,

ENVIRONMENTAL RESOURCE SOLUTIONS, INC.

  
Allan F. Hooker  
Vice President

Enclosure: Contract (2 Copies)

(AFH/aly/P10044/Wehner)

**CONTRACT**  
Prepared for:  
**Mr. Larry Wehner, P.E.**  
**Jacksonville Transportation Authority**  
**100 North Myrtle Avenue**  
**Jacksonville, FL 32203**  
**16 March 2010**

**RE: FIND Island Grass Planting**  
**ERS Contract No. P10044**

Environmental Resource Solutions, Inc. (ERS) will perform the following work tasks towards establishing grass species on the 0.9-acre± spoil mound:

Task 1 – Quick Grow Grass Species Seeding. Acquire brown top millet (*Panicum ramosum*) seeds, arrange for transporting the seeds to FIND Island, and apply the seeds at a rate of 111 lbs/acre, and lightly rake the seeds into the soil. This task will be completed within seven business days of the JTA notice to proceed.

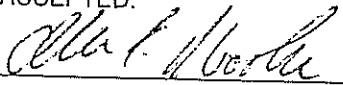
Task 1 Fee, Lump Sum.....\$2,800.00

Task 2 – Perennial Grass Species Seeding. Acquire Pensacola Bahia grass (*Paspalum notatum var.*) seeds, arrange for transporting the seeds to FIND Island, and apply the seeds at a 222 lbs/acre rate in June 2010.

Task 2 Fee, Lump Sum.....\$1,550.00

ERS is pleased to provide you with these services. Our invoices are prepared monthly on a percent complete basis. Payment is due within 30 days of receipt of invoice. Both parties agree to resolution of any disputes within a Duval County, Florida court. This serves as an agreement between Environmental Resource Solutions, Inc. and the below signatory. If the client's account, after default, is referred to an attorney or collection agency for collection, client shall pay all of ERS expenses incurred in such collection efforts including, but not limited to court costs and reasonable attorneys' fees. Please sign both copies of this proposal and return one original to our office.

TERMS ACCEPTED:

BY: 

BY: \_\_\_\_\_  
(Signature)

FOR: ENVIRONMENTAL RESOURCE  
SOLUTIONS, INC.

DATE: 16 March 2010

\_\_\_\_\_  
(Printed/Typed)

FOR: \_\_\_\_\_

DATE: \_\_\_\_\_

**CONTRACT**  
Prepared for:  
**Mr. Larry Wehner, P.E.**  
**Jacksonville Transportation Authority**  
**100 North Myrtle Avenue**  
**Jacksonville, FL 32203**  
**16 March 2010**

RE: **FIND Island Grass Planting**  
**ERS Contract No. P10044**

Environmental Resource Solutions, Inc. (ERS) will perform the following work tasks towards establishing grass species on the 0.9-acre± spoil mound:

Task 1 – Quick Grow Grass Species Seeding. Acquire brown top millet (*Panicum ramosum*) seeds, arrange for transporting the seeds to FIND Island, and apply the seeds at a rate of 111 lbs/acre, and lightly rake the seeds into the soil. This task will be completed within seven business days of the JTA notice to proceed.

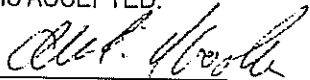
Task 1 Fee, Lump Sum.....\$2,800.00

Task 2 – Perennial Grass Species Seeding. Acquire Pensacola Bahia grass (*Paspalum notatum var.*) seeds, arrange for transporting the seeds to FIND Island, and apply the seeds at a 222 lbs/acre rate in June 2010.

Task 2 Fee, Lump Sum.....\$1,550.00

ERS is pleased to provide you with these services. Our invoices are prepared monthly on a percent complete basis. Payment is due within 30 days of receipt of invoice. Both parties agree to resolution of any disputes within a Duval County, Florida court. This serves as an agreement between Environmental Resource Solutions, Inc. and the below signatory. If the client's account, after default, is referred to an attorney or collection agency for collection, client shall pay all of ERS expenses incurred in such collection efforts including, but not limited to court costs and reasonable attorneys' fees. Please sign both copies of this proposal and return one original to our office.

TERMS ACCEPTED:

BY: 

BY: \_\_\_\_\_  
(Signature)

FOR: ENVIRONMENTAL RESOURCE  
SOLUTIONS, INC.

DATE: 15 March 2010

\_\_\_\_\_  
(Printed/Typed)

FOR: \_\_\_\_\_

DATE: \_\_\_\_\_

ENVIRONMENTAL RESOURCE SOLUTIONS, INC.  
Fee Schedule  
Effective January 2010

Senior Environmental Scientist I.....	\$150.00/Hr.
Environmental Scientist I.....	\$95-\$115/Hr.
Environmental Scientist II.....	\$80-\$90/Hr.
Environmental Scientist III.....	\$70-\$75/Hr.
Environmental Scientist IV.....	\$60-\$65/Hr.
Environmental Scientist V.....	\$50-\$55/Hr.
CADD Operator/Draftsperson.....	\$60.00/Hr.
Clerical.....	\$60.00/Hr.
Mileage.....	\$0.60/Mile
In House Copies, 8½ x 11, B & W.....	\$0.15/Per Page
In House Copies, 8½ x 11, Color.....	\$0.89/Per Page
In House Copies, 11 x 17, B & W.....	\$.30/Per Page
In House Copies, 11 x 17, Color.....	\$1.60/Per Page
Plots/Aerials.....	\$40.00 Each
GPS Trimble Rental.....	\$75/Hr.

# ATTACHMENT D

## Robert T. Franques

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**From:** Ken Ceglady [kceglady@ersenvironmental.com]  
**Sent:** Tuesday, March 23, 2010 2:09 PM  
**To:** Allan Hooker; Robert T. Franques; Larry Wehner  
**Subject:** RE: FIND Island - Mound Vegetation

Larry:

The site conditions before the island was scraped were similar to the present conditions – excavated sandy material. Before, plants were limited by the saline tidal water – roots of all of the upland (non-saltmarsh) plants only penetrated to the level of high tide. The increased elevation of the mound will not prevent the growth of plants, and may in fact give their roots extra room to grow. The slope does, however, introduce problems of erosion, retention of precipitation, wind and sun exposure, etc.

All of the species I mention below can and do grow on poor soil and in exposed conditions. Whether they will grow on the mound will depend on how well they can become established – which will have a lot to do with the quality and size of the planting material, and the conditions following planting (especially rain).

I recommend that care be taken to secure the best planting material, and that planting be scheduled to take advantage of high precipitation. It may also be possible to design the planting in such a way to mitigate for some of the site's shortcomings.

Even with all precautions taken, please be aware that higher than normal mortality is likely to occur. We can't expect 100% cover.

Thanks.

Ken Ceglady

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**From:** Larry Wehner [mailto:lwehner@jtafla.com]  
**Sent:** Monday, March 22, 2010 6:01 PM  
**To:** Allan Hooker; Robert T. Franques  
**Subject:** FIND Island - Mound Vegetation

Allan and Robert

While I am not an expert on vegetation, I agree that seeing what grew there previously gives us the best idea of what might survive. However, please remember that the previous elevations on the spoil island were between 2.0 and 5.9 feet, with the average being between 3 and 4 feet. The elevation for the upland is now between 5 and 29 feet. Also, the mound is made up of a very porous sandy material.

Larry

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**From:** Allan Hooker [mailto:allan.hooker@ersenvironmental.com]  
**Sent:** Monday, March 22, 2010 11:08 AM  
**To:** Robert T. Franques  
**Cc:** Larry Wehner; Tony Shoultz  
**Subject:** FW: FIND mountain

Robert-

Here's a plant list from our botanist. Note that it includes two tree species and a groundcover species that will remain green in winter (presumably favored by CoNB). Let me know of questions/comments.

**Allan Hooker**  
**Vice President**

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**From:** Ken Ceglady  
**Sent:** Monday, March 22, 2010 10:57 AM  
**To:** Allan Hooker  
**Subject:** FIND mountain

The vegetation that was on the upland portions of island before it was scraped is evidenced by remnants around the edges of the excavated area. Species included: red cedar, tallow, wax myrtle, black cherry, yaupon holly.

All of the species below are native and are well adapted to the conditions. All are commercially available – some more so than others.

**Trees:**

Red cedar (*Juniperus virginiana*)

Non-native junipers that may attempt to be substituted are NOT trees, are NOT as well adapted as red cedar, and are NOT recommended. The island had red cedar on it before, and a few are left around the edges. Red cedar is a proven species. Evergreen.

Sugarberry (*Celtis laevigata*)

Live oak (*Quercus virginiana*)

Evergreen.

Black cherry (*Prunus serotina*)

**Shrubs:**

Wax myrtle (*Myrica cerifera*)

Yaupon holly (*Ilex vomitoria*)

Avoid the horticultural selections. Some of them are sterile, and so won't reproduce.

Beautyberry (*Callicarpa americana*)

Florida privet (*Forestiera segregata*)

**Herbaceous plants:**

Blanketflower (*Gaillardia pulchella*)

This is one of the best for coastal areas, and is commonly commercially available. Avoid horticultural selections.

Goldenaster (*Chrysopsis* spp.)

This is another great coastal species, but may be hard to find.

Horsemint (*Mondarda punctata*)

A great spreading coastal species that will provide better green cover in the winter than blanketflower or goldenaster. It may be somewhat hard to find.

There are a few remnant tallow trees (*Sapium sebiferum*) around the island. This is a serious nuisance/exotic species (FLEPPC Category I). Most or all of them were cut down last summer to reduce seed production (for the time being). Despite this, tallow seeds are present on the top and sides of the mountain, and seedlings are sprouting all over. This species is the worst vegetative problem you will have on the island. Control may be necessary.

We are JTA, an independent state agency committed to providing effective and efficient transportation solutions for our growing region through roads and public transit options.  
Part of your day. Part of your community. Part of your life.