

RESOLUTION NO. 2017- 140

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, APPROVING THE TERMS, PROVISIONS, CONDITIONS, AND REQUIREMENTS OF AN AMENDMENT TO THE GRANT AGREEMENT WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) RELATED TO THE MASTERS TRACT REGIONAL STORMWATER TREATMENT FACILITY; AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO EXECUTE THE AMENDMENT TO THE GRANT AGREEMENT WITH FDEP ON BEHALF OF THE COUNTY; APPROVING THE TERMS, PROVISIONS, CONDITIONS, AND REQUIREMENTS OF AN AMENDMENT AND RESTATEMENT OF THE MEMORANDUM OF AGREEMENT WITH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (DISTRICT) RELATED TO THE MASTERS TRACT REGIONAL STORMWATER TREATMENT FACILITY; AND AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO EXECUTE THE AMENDMENT AND RESTATEMENT OF THE MEMORANDUM OF AGREEMENT WITH THE DISTRICT ON BEHALF OF THE COUNTY.

RECITALS

WHEREAS, FDEP is in receipt of federal financial assistance from the U.S. Environmental Protection Agency; and

WHEREAS, St. Johns County (County) has been determined to be a recipient of this federal financial assistance; and

WHEREAS, as authorized by St. Johns County Resolution No. 2014-222, the County previously entered into a grant agreement with FDEP, FDEP Agreement No. G0393, to perform the project in accordance with the terms and conditions set forth therein; and

WHEREAS, the County and FDEP wish to make certain amendments to the grant agreement, including to extend the term of the agreement an additional twelve months at no additional cost, as reflected in FDEP Agreement No. G0393 Amendment No. 1, attached hereto; and

WHEREAS, the County has reviewed the terms, provisions, conditions, and requirements of FDEP Agreement No. G0393 Amendment No. 1 and determined that

they serve the interest of the County and will not create an undue burden on the County; and

WHEREAS, as authorized by St. Johns County Resolution No. 2014-192, on or about October 8, 2014, the County and the District previously entered into a Memorandum of Agreement related to the FDEP grant project regarding the St. Johns County Basin 8 Regional Offsite Mitigation Area (ROMA); and

WHEREAS, the County wishes, and the District has agreed, to make modifications to the ROMA for Basin 8 to exclude some of the proposed mitigation area within Canal 4 and defer mitigation activities in an additional area (Canal 4N); and

WHEREAS, the County and the District wish to formalize their agreement to these modifications to the ROMA in an Amendment and Restatement of the Memorandum of Agreement, attached hereto; and

WHEREAS, the County has reviewed the terms, provisions, conditions, and requirements of the Amendment and Restatement of the Memorandum of Agreement and determined that they serve the interest of the County and will not create an undue burden on the County.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, as follows:

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as findings of fact.

Section 2. The Board of County Commissioners hereby approves the terms, provisions, conditions, and requirements of FDEP Agreement No. G0393 Amendment No. 1, and authorizes the County Administrator, or designee, to execute FDEP Agreement No. G0393 Amendment No. 1 on behalf of the County, in substantially the same form and format as attached.

Section 3. The Clerk of Courts of St. Johns County is instructed to have four (4) copies of the original, executed FDEP Agreement No. G0393 Amendment No. 1 mailed to the State of Florida Department of Environmental Protection, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000.

Section 4. The Board of County Commissioners hereby approves the terms, provisions, conditions, and requirements of the Amendment and Restatement of the Memorandum of Agreement between St. Johns River Water Management District and St. Johns County for St. Johns County Basin 8 Regional Offsite Mitigation Area (ROMA), and authorizes the County Administrator, or designee, to execute the Amendment and Restatement of the Memorandum of Agreement on behalf of the County, in substantially the same form and format as attached.

Section 5. The Clerk is instructed to have four (4) copies of the original, executed Amendment and Restatement of the Memorandum of Agreement mailed to the St. Johns River Water Management District, Jacksonville Service Center, 7775 Baymeadows Way, Suite 102, Jacksonville, Florida 32256.

Section 6. To the extent that there are typographical and/or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution may be revised without subsequent approval by the Board of County Commissioners.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, Florida, this 2nd day of May, 2017.

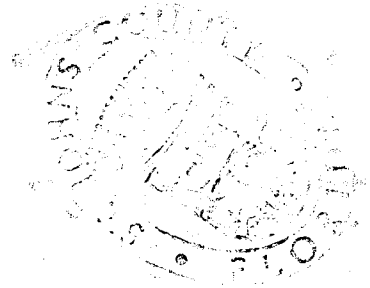
**BOARD OF COUNTY COMMISSIONERS
OF ST. JOHNS COUNTY, FLORIDA**

By: _____

James K. Johns, Chair

ATTEST: Hunter S. Conrad, Clerk

By: Pam Halterman
Deputy Clerk



RENDITION DATE 5/4/17

DEP AGREEMENT NO. G0393
AMENDMENT NO. 1

THIS AGREEMENT as entered into on the August 27, 2014, between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (hereinafter referred to as the "Department") and the ST. JOHNS COUNTY BOARD OF COUNTY COMMISSIONERS (hereinafter referred to as the "Grantee") is hereby amended.

WHEREAS, due to construction delays, the Grantee has requested an additional twelve (12) months to complete work; and,

WHEREAS, the Department has agreed to the no-cost extension to complete the project; and,

WHEREAS, other changes to the Agreement are necessary.

NOW, THEREFORE, the parties hereto agree as follows:

- Paragraph 2 is hereby revised to change the completion date of the Agreement to June 30, 2018.
- Paragraph 7.C is hereby deleted in its entirety.
- Paragraph 17 is hereby deleted in its entirety and replaced with the following:
- 17. The Department's Grant Manager (which may also be referred to as the Department's Project Manager) for this Agreement is identified below.

Emily Forinash	
Florida Department of Environmental Protection	
Nonpoint Source Management Program	
3900 Commonwealth Blvd., MS#3570	
Tallahassee, Florida 32399-3000	
Telephone No.:	(850) 245-2944
E-mail Address:	Emily.Forinash@dep.state.fl.us

- The following is hereby added to the Agreement as Paragraph 33:
 - A. Grantee shall comply with Florida Public Records law under Chapter 119, F.S. Records made or received in conjunction with this Agreement are public records under Florida law, as defined in Section 119.011(12), F.S. Grantee shall keep and maintain public records required by the Department to perform the services under this Agreement.
 - B. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to either provide to the Department upon request, or to allow inspection and copying of all public records made or received by the Grantee in conjunction with this Agreement and subject to disclosure under Chapter 119, F.S. and Section 24(a), Article I, Florida Constitution.
 - C. If Grantee meets the definition of "Contractor" found in Section 119.0701(1)(a), F.S.; [i.e., an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency], then the following requirements apply:

- i. Pursuant to Section 119.0701, F.S., a request to inspect or copy public records relating to this Agreement for services must be made directly to the Department. If the Department does not possess the requested records, the Department shall immediately notify the Grantee of the request, and the Grantee must provide the records to the Department or allow the records to be inspected or copied within a reasonable time. If Grantee fails to provide the public records to the Department within a reasonable time, the Grantee may be subject to penalties under s. 119.10, F.S.
- ii. Upon request from the Department's custodian of public records, Grantee shall provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- iii. Grantee shall identify and ensure that all public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the Grantee does not transfer the records to the Department.
- iv. Upon completion of the Agreement, Grantee shall transfer, at no cost to the Department, all public records in possession of Grantee or keep and maintain public records required by the Department to perform services under this Agreement. If the Grantee transfers all public records to the Department upon completion of the Agreement, the Grantee shall destroy any duplicate public records that are exempt or confidential and exempt from public disclosure requirements. If the Grantee keeps and maintains public records upon completion of the Agreement, the Grantee shall meet all applicable requirements for maintaining public records. All records that are stored electronically must be provided to Department, upon request from the Department's custodian of public records, in a format that is accessible by and compatible with the information technology systems of Department.

D. IF THE GRANTEE HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE GRANTEE'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE DEPARTMENT'S CUSTODIAN OF PUBLIC RECORDS by telephone at (850) 245-2118, by email at ombudsman@dep.state.fl.us, or at the mailing address below:

**Department of Environmental Protection
ATTN: Office of Ombudsman and Public Services
Public Records Request
3900 Commonwealth Blvd, Mail Slot 49
Tallahassee, FL 32399**

-- The following is hereby added to the Agreement as Paragraph 34:

Grantee certifies that it and any of its affiliates are not scrutinized companies as identified in Section 287.135, F.S. In addition, Grantee agrees to observe the requirements of Section 287.135, F.S., for

applicable sub-agreements entered into for the performance of work under this Agreement. Pursuant to Section 287.135, F.S., the Department may immediately terminate this Agreement for cause if the Grantee, its affiliates, or its subcontractors are found to have submitted a false certification; or if the Grantee, its affiliates, or its subcontractors are placed on any applicable scrutinized companies list or engaged in prohibited contracting activity during the term of the Agreement. As provided in Subsection 287.135(8), F.S., if federal law ceases to authorize these contracting prohibitions then they shall become inoperative.

-- The following is hereby added to the Agreement as Paragraph 35:

This Agreement, and any Amendments or Change Orders thereto, may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.

-- Attachment A, Grant Work Plan, is hereby deleted in its entirety and replaced with **Attachment A-1, Revised Grant Work Plan**, attached hereto and made a part of the Agreement. All references in the Agreement to Attachment A shall hereinafter refer to **Attachment A-1, Revised Grant Work Plan**.

In all other respects, the Agreement of which this is an Amendment, and attachments relative thereto, shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed the day and year last written below.

ST. JOHNS COUNTY BOARD OF
COUNTY COMMISSIONERS

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

By: _____
*Title:

By: _____
Secretary or Designee

Date: _____

Date: _____

DEP Grant Manager

QC Review By

*For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Amendment, a resolution, statement or other document authorizing that person to sign the Amendment on behalf of the Grantee must accompany the Amendment.

List of attachments/exhibits included as part of this Amendment:

<u>Specify Type</u>	<u>Letter/Number</u>	<u>Description (include number of pages)</u>
Attachment	A-1	Revised Grant Work Plan (8 pages)

**ATTACHMENT A-1
REVISED GRANT WORK PLAN**

PROJECT NAME: Masters Tract Regional Stormwater Treatment Facility

PROJECT LOCATION AND WATERSHED CHARACTERISTICS:

Geographic Location: County Road 13, Hastings, St. Johns County, Florida

Latitude: 29.686897

Longitude: -81.473536

PROJECT DESCRIPTION: The Masters Tract Regional Stormwater Treatment (RST) Facility (Figure 1) treats stormwater from the Canal 5 agricultural drainage ditch (Figure 2). As Figure 3 shows, the stormwater from Canal 5 is routed to an offline treatment system using a forebay and a pump station. The bypassed stormwater is treated using a wet detention pond followed by constructed wetland treatment cells. Stormwater from the pond may also be harvested during the dry season to irrigate an adjacent sod field. Below is a summary of the best management practices (BMP) that comprise the Masters Tract project. The federal grant funds will contribute to the second phase of construction, which includes BMPs 4 through 7 (Tasks 3 and 4).

BMP	Location	Component	Construction	Description
BMP #1	Canal 5	Stormwater pump station	One 1.5-cfs base flow pump	Two 8-cfs storm flow pumps
BMP #2	Canal 5	Wet detention pond	285 acre-feet permanent pool volume	50 acre-feet treatment volume
BMP #3 ¹	Canal 5 – Dry season	Stormwater harvesting pump station	One 350-gpm irrigation pump	One 80-micron automatic filter
BMP #4	Canal 5 – Wet season	Wetland Cell 1	17.5 acres	Forested wetland
BMP #5	Canal 5 – Wet season	Wetland Cell 2	15.3 acres	Forested wetland
BMP #6	Canal 5 – Wet season	Wetland Cell 3	14.2 acres	Forested wetland
BMP #7	Canal 5	Wetland Cell 4 flow-way	9.9 acres	Herbaceous wetland flow-way

¹BMP #3 will not be presented in the task descriptions, as it will be constructed in a future phase of the overall project.

TASKS AND DELIVERABLES:

TASK 1: Bidding and Contract Administration

TASK DESCRIPTION: The Grantee has completed designing and permitting the Masters Tract RST and procured a contractor to construct the project. This task includes the time necessary to administer the construction, observe monitoring activities, and prepare a final report for the project that includes results of the monitoring described in Task 5. The Grantee's staff will provide a resident observer who will prepare monthly project status reports. The Grantee's staff will submit quarterly progress reports to the Department as required in paragraph 5A of the Agreement. The Grantee shall submit a draft project report (in Word or Adobe format) as well as a final project report that addresses the Department's draft report review comments. The final project report is intended to capture the outcome and results of the project, including all tasks included in the project. The report shall include, at a minimum, the following: a summary of monitoring results and an explanation of any unexpected monitoring results or unexpected occurrences, such as why a BMP did not obtain or exceeded the expected removal efficiencies; any problems encountered during the project and how those problems were overcome; an explanation of any project delays; any additional information that explains the results of the project; and a full accounting of the project funds, both grant and match, by budget category to give others a good idea of what the project cost.

DELIVERABLES: Copy of Notice to Proceed and draft and final project reports.

PERFORMANCE STANDARD: The Department's Grant Manager will review the draft final report and provide comments to the Grantee. The Grant Manager will review the final report for compliance with all of the requirements identified in the task descriptions and to ensure corrections to the draft have been made and comments considered for

incorporation. The monitoring portion of the report will be checked to see that the information needed for reporting to the Environmental Protection Agency (EPA) on the project's BMP efficiencies is included.

TASK 2: Construction of Canal 5 Intake, Pump Station, and Wet Detention Pond (BMPs 1 and 2)

TASK DESCRIPTION: This task entails the construction of a forebay for the Canal 5 intake, an 8 cfs pump station, and an approximately 35-acre wet detention pond, which will provide water for the wetland cells.

DELIVERABLES: Certificates of Completion for task components, construction photographs of all task components, and record drawings of this task's components, submitted electronically.

PERFORMANCE STANDARD: The Department's Grant Manager will review the photographs and record drawings for all components to verify that construction has been completed in accordance with the approved plans.

TASK 3: Construction of Wetland Cells 1, 2, and 3 (BMPs 4 through 6)

TASK DESCRIPTION: This task includes the construction and planting of three created wetland cells that comprise approximately 46 acres of forested wetlands adjacent to Deep Creek. These wetlands will be planted with a diversity of native tree, shrub, and herbaceous plant species to provide high-quality wildlife habitat and to further enhance water quality before it is discharged to the floodplain wetlands of Deep Creek.

DELIVERABLE 3a: Construction completed to date as described in this task, as evidenced by these interim deliverables: 1) Signed acceptance of the completed work by the Grantee, 2) Contractor's Application and Certification for Payment, and 3) dated color photographs of on-going work representing time period covered in payment request.

PERFORMANCE STANDARD: The Department's Grant Manager will review each submitted interim deliverable to verify that it meets the specifications in the Grant Work Plan and this task description and that work is being performed in accordance with the Grantee's construction contract documents and specifications. Upon review and written acceptance of each quarterly interim deliverables submittal by the Department's Grant Manager, the Grantee may proceed with payment request submittal for costs associated with that quarter under this task.

Contractor's Application and Certification for Payment should include the following supporting documentation:

1. An itemized summary of the materials, labor, and/or services utilized during the period for which payment is being requested.
2. The summary should identify the nature of the work performed; the amount expended for such work; the name of the person/entity providing the service or performing the work; proof of payment of the invoices; and evidence of all work conducted for which a request for payment is being made.
3. Evidence may include references to any drafts or partially-complete designs, surveys, environmental documents and/or permit applications, drawings, and specifications (which must be made available upon request); and documentation demonstrating partial completion of construction activities.

DELIVERABLE 3b: Certificates of Completion for task components, construction photographs of all task components, and record drawings of this task's components, submitted electronically

PERFORMANCE STANDARD: The Department's Grant Manager will review the final deliverables to verify that construction has been completed in accordance with the approved plans. Upon review and written acceptance by the Department's Grant Manager of all deliverables under this task, the Grantee may proceed with payment request submittal.

TASK 4: Construction of Cell 4 Wetland Flow-Way (BMP 7)

TASK DESCRIPTION: The Cell 4 Wetland Flow-Way is a passive wetland-treatment system. This task includes the construction of the Cell 4 wetland treatment flow-way, which entails excavating uplands to create a broad and shallow herbaceous treatment wetland.

DELIVERABLE 4a: Construction completed to date as described in this task, as evidenced by these interim deliverables: 1) Signed acceptance of the completed work by the Grantee, 2) Contractor's Application and Certification for Payment, and 3) dated color photographs of on-going work representing time period covered in payment request.

PERFORMANCE STANDARD: The Department's Grant Manager will review each submitted interim deliverable to verify that it meets the specifications in the Grant Work Plan and this task description and that work is being performed in accordance with the Grantee's construction contract documents and specifications. Upon review and written acceptance of each quarterly interim deliverables submittal by the Department's Grant Manager, the Grantee may proceed with payment request submittal for costs associated with that quarter under this task.

Contractor's Application and Certification for Payment should include the following supporting documentation:

1. An itemized summary of the materials, labor, and/or services utilized during the period for which payment is being requested.
2. The summary should identify the nature of the work performed; the amount expended for such work; the name of the person/entity providing the service or performing the work; proof of payment of the invoices; and evidence of all work conducted for which a request for payment is being made.
3. Evidence may include references to any drafts or partially-complete designs, surveys, environmental documents and/or permit applications, drawings, and specifications (which must be made available upon request); and documentation demonstrating partial completion of construction activities.

DELIVERABLE 4b: Certificate of Completion for task components, construction photographs of all task components, and record drawings of this task's components, submitted electronically

PERFORMANCE STANDARD: The Department's Grant Manager will review the final deliverables to verify that construction has been completed in accordance with the approved plans. Upon review and written acceptance by the Department's Grant Manager of all deliverables under this task, the Grantee may proceed with payment request submittal.

TASK 5: BMP Effectiveness Monitoring

TASK DESCRIPTION: The project's water-quality-monitoring program will be supplemented by the Grantee's existing monitoring program and will quantify the performance of the project's BMPs. Since the project is a treatment-train approach, the monitoring program is tailored to each treatment component.

Within the last 6 months of project construction, the Grantee will complete and submit to the Department a Quality Assurance Project Plan (QAPP) for monitoring. The QAPP will be approved by the Department's staff before any monitoring commences. The QAPP will specify the sampling locations (Figure 3), sampling instruments, and parameters to be sampled. The parameters will include but will not be limited to TN (pounds per year), TP (pounds per year), Total Suspended Solids (pounds per year), NO_x, Total Kjeldahl Nitrogen, NH₃, Orthophosphate, rainfall, and flow.

The wet detention pond (BMP 2) will be monitored for seven storm events distributed over four seasonal quarters and five events during base/flow conditions during periods of increased agricultural activities in the upstream watershed, typically in early March, April, and May. The goal for storm-events monitoring is to capture data for events greater than 0.2 inch and less than 1.5 inches. There may be events that exceed the 1.5-inch threshold. Monitored events will include a minimum of seven discrete rain events that are generally greater than 0.20 inch and less than 1.5 inches. Inflow and outflow locations (Figure 3) will be monitored for each of the BMPs installed and in accordance with the approved QAPP. Sampling locations will be recorded and verified using a GPS device.

BMPs 4 through 7, which are funded by this grant, will be sampled 12 times at the inflow and outflow locations (Figure 3) for the same parameters listed above. After the monitoring is completed, the Grantee will submit a final report summarizing the removal efficiencies of each BMP component.

DELIVERABLES: Draft QAPP, approved QAPP, and quarterly reporting of monitoring activities accomplished.

PERFORMANCE STANDARD: The Department's Grant Manager will provide comments on the draft QAPP and check the final QAPP to ensure comments were addressed in the final version. The Grant Manager will review the quarterly activities reports to ensure that the sampling is proceeding in a manner that can result in determining BMP efficiencies for reporting to EPA.

TASK 6: Community Outreach and Education

TASK DESCRIPTION: This task entails the Grantee's efforts to increase awareness of water-quality issues and educate and inform the public and local farmers of the intent and importance of this project. This will be accomplished by:

- Developing a brochure explaining the benefits of the project to the county.
- Presenting the benefits of the project to local growers at a Hastings Drainage District commission meeting.
- Conducting tours of the project when requested by the public.
- Installing a public kiosk onsite explaining the benefits of the project.

DELIVERABLE 6a: 1) Copy of draft print-ready brochure submitted to the Department's Grant Manager for review and approval prior to final printing and distribution; 2) copy of draft kiosk/sign(s) text and graphic submitted to the

Department's Grant Manager for review and approval prior to final printing and distribution; 3) draft materials for public presentations and educational meetings submitted to the Department's Grant Manager for review and approval prior to presentation or meetings.

PERFORMANCE STANDARD: The Department's Grant Manager must approve draft materials prior to public distribution. The Department's Grant Manager will review the draft deliverables and provide comments to the Grantee as needed.

DELIVERABLE 6b: 1) Copy of the final printed brochure with number distributed and where; 2) dated photograph(s) of installed kiosk/sign as approved; and 3) copy of meeting or workshop notices, agenda(s), meeting minutes or notes, and sign-in sheets.

PERFORMANCE STANDARD: The Department's Grant Manager will review the final deliverables to ensure the draft comments have been taken into consideration.

PROJECT TIMELINE: The tasks must be completed by the corresponding task end date and all deliverables must be received by the designated due date. If at any time, this Grant Agreement is amended to extend the Grant Agreement end date, in no event shall grant project work be authorized past EPA's 319(h) 2013 Grant end date of September 30, 2017 regardless of whether it is grant-funded or match-funded work.

Task No.	Description	Task Start Date	Task End Date	Deliverable Due Date
1	Bidding and Contract Administration	December 1, 2012	June 30, 2018	June 30, 2018
2	Construction of Canal 5 Intake, Pump Station, and Wet Detention Pond (BMPs 1 and 2)	February 1, 2013	October 31, 2015	October 31, 2015
3	Construction of Wetland Cells 1, 2, and 3 (BMPs 4 through 6)	January 1, 2014*	June 30, 2017	June 30, 2017
3a	Interim Deliverables			Not more than once per quarter
3b	Final Deliverables			June 30, 2017
4	Construction of Cell 4 Wetland Flow-Way (BMP 7)	January 1, 2014*	June 30, 2017	June 30, 2017
4a	Interim Deliverables			Not more than once per quarter
4b	Final Deliverables			June 30, 2017
5	BMP Effectiveness Monitoring	June 1, 2014	June 30, 2018	June 30, 2018
6	Community Outreach and Education	January 1, 2014	June 30, 2017	June 30, 2018
6a	Interim Deliverables			May 31, 2018
6b	Final Deliverables			June 30, 2018

*Invoices submitted for reimbursement will be for work performed after the execution of this Agreement.

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PROJECT BUDGET BY TASK and CATEGORY:

Task No.	Category	Grant Funding	Match Funding
	No Grant Funds or Required Grantee Match Funds Associated with this Task.		
	Contractual	\$0	\$1,917,006
	Total for Task:	\$0	\$1,917,006
	Contractual	\$576,228	\$0
	Total for Task:	\$576,228	\$0
	Contractual	\$219,779	\$0
	Total for Task:	\$219,779	\$0
	No Grant Funds or Required Grantee Match Funds Associated with this Task.		
	No Grant Funds or Required Grantee Match Funds Associated with this Task.		
	Subtotals:	\$796,007	\$1,917,006
	Total:	\$796,007	\$1,917,006
	Percentage Match:	29.3%	70.7%

PROJECT BUDGET BY CATEGORY:

Category Totals	Grant Funding	Required Match Funding
Contractual Total	\$796,007	\$1,917,006
Subtotals:	\$796,007	\$1,917,006
Total Grant Project Cost:	\$2,713,013	
Percentage Match:	29.3%	70.7%

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Figure 1 Masters Tract Location Map

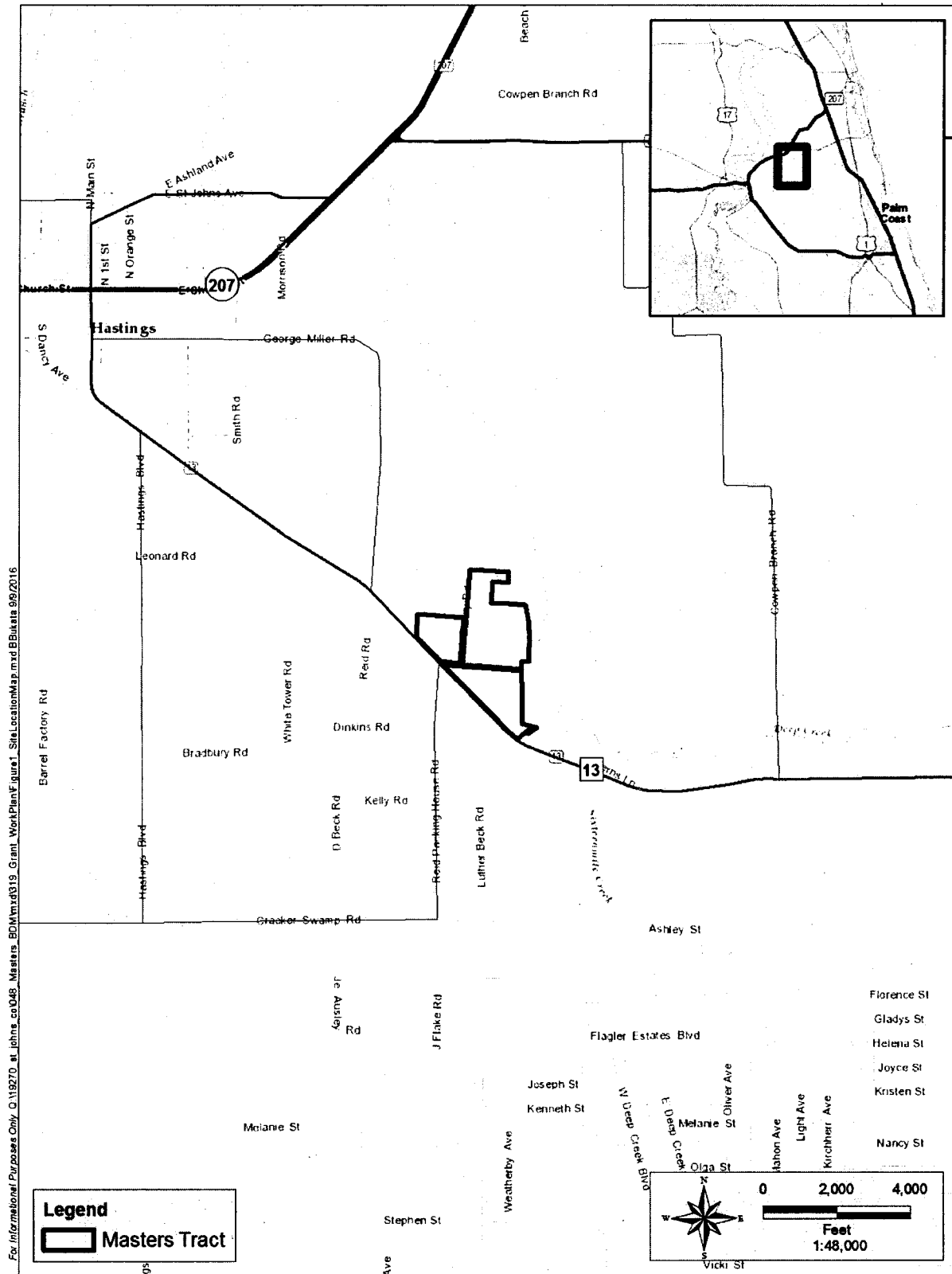
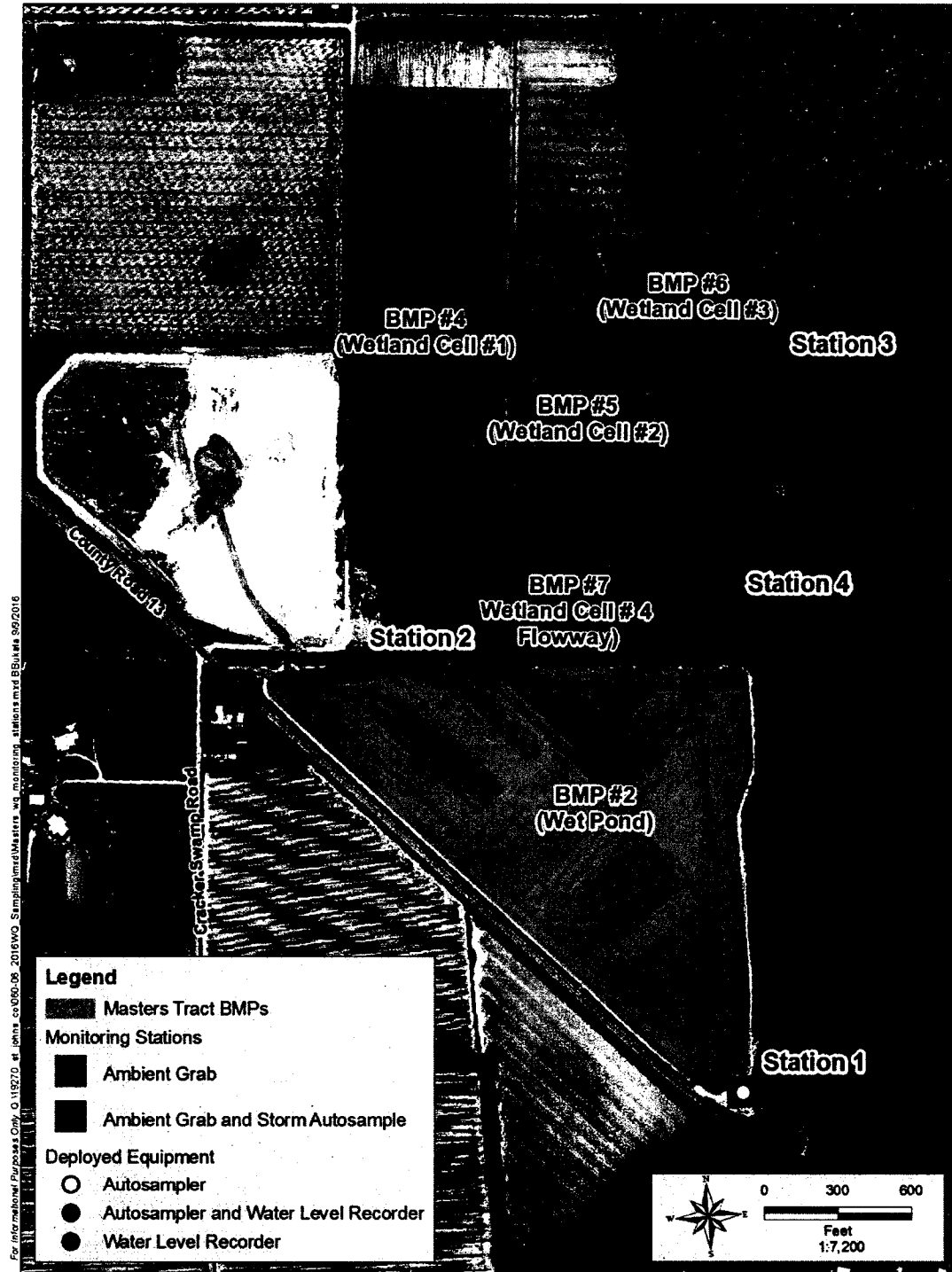


Figure 2 Drainage Basin Aerial Map



For Informational Purposes Only 0/19270 at Johns co048 Masters BDM.mxd019 Grant WorkPlan\Figure2 Drainage Basins.mxd BBulata 9/6/2016

Figure 3 Water Quality Sampling Location Map



**AMENDMENT AND RESTATEMENT OF MEMORANDUM OF AGREEMENT
BETWEEN
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND ST. JOHNS COUNTY
FOR ST. JOHNS COUNTY BASIN 8 REGIONAL OFFSITE MITIGATION AREA
(ROMA)**

THIS AMENDMENT AND RESTATEMENT OF MEMORANDUM OF AGREEMENT (MOA) is entered into by the St. Johns River Water Management District (District) and St. Johns County (County) regarding the St. Johns County Basin 8 Regional Offsite Mitigation Area (ROMA).

WITNESSETH:

WHEREAS, Section 373.4135(1), Florida Statutes (F.S.), directs the District to participate in and encourage the establishment of public offsite regional mitigation;

WHEREAS, the County desires to establish a ROMA to serve as mitigation for future environmental resource permits (ERPs) issued by the District to the County for County projects;

WHEREAS, Section 373.4135(6), F.S., requires that certain ROMAs for which money is donated or paid as mitigation be established and operated pursuant to a Memorandum of Agreement (MOA);

WHEREAS, although Section 373.4135(6), F.S., does not require that this St. Johns County Basin 8 ROMA be established and operated under an MOA because no money will be donated or paid as mitigation, the parties have determined that an MOA would be mutually beneficial;

WHEREAS, Section 373.4135, F.S., provides that such MOA need not be adopted by rule;

WHEREAS, the County wishes to make modifications to the ROMA for Basin 8 to exclude some of the proposed mitigation area within Canal 4 and defer mitigation activities in an additional area (Canal 4N);

NOW THEREFORE, for and in consideration of the foregoing, which are made a part of the MOA, the District and the County hereby agree to the following:

Section 1. The County will implement the St. Johns County Basin 8 ROMA as described in the following five documents: (1) The Floyd Preservation Plan- attached as Exhibit "A"; (2) The Masters Tract Wetland Mitigation Plan (Drawings WM1-WM11) – attached as Exhibit B (3) The Tatum Tract Mitigation Plan View Map- attached as Exhibit C; (4) Uniform Mitigation Assessment Methodology analysis summary table as

Exhibit D, and (5) this MOA. Each of the exhibits described in this section shall be incorporated into and made part of this MOA.

Section 2. In exchange for the County's implementation of the St. Johns County Basin 8 ROMA as described above, the County will be able to use 25.44 Total Functional Gain Units (FGUs) from the ROMA as mitigation for ERPs issued by the District to the County for County projects in Basin 8 upon implementation of Phase 1 and an additional 1.57 FGUs from the ROMA as mitigation for ERPs issued by the District for County projects in Basin 8 upon implementation of Phase 2 for a total of 27.01 FGUs.

Section 3. Responsibilities.

A. *Description of work.* The County will conduct the following activities to return the sites to a more natural state:

Floyd Tract

- Preservation of 55.87 acres of wetlands
- Preservation of 2.77 acres of uplands

Masters Tract

- Phase I- Wetland Herbaceous Creation (Cell 4 and Cells 1, 2, and 3) of 10.4 acres
- Phase I- Wetland Forest Enhancement of 7.8 acres
- Phase I- Forested Wetland Creation (Cells 1, 2 ,3A and 3B) of 37.4 acres
- Phase I- Upland Buffer Enhancement of 20.6 acres
- Phase I- Preservation of 3.1 acres of wetlands
- Phase II- Wetland Flow-way Creation (Cell 4N) of 4.4 acres.

Tatum Tract

- Preservation of 60.7 acres of wetlands
- Forested Wetland Enhancement of 13.4 acres
- Forested Upland Buffer Enhancement of 17.1 acres

The County will begin conducting these activities in 2013 and expects to complete construction in 2017.

B. *Timeline for obtaining any required ERP.* Some of the mitigation activities required an ERP, which the County obtained on March 16, 2012 (4-109-126294-1). A modification to this permit was obtained on September 9, 2016, (4-109-126294-2) to address changes to the grading and construction plans for the Masters Tract.

C. Environmental success criteria.

Floyd Tract:

- (a) Preserve the entire property in perpetuity by conveying a conservation easement approved in writing by District staff.
- (b) Perform annual inspection and exotic species removal/maintenance as needed. Invasive exotic species covers 1% or less in any one acre area.

Masters Tract:

- (a) Preserve the entire property in perpetuity by conveying a conservation easement approved in writing by District staff.
- (b) Perform annual inspection and exotic species removal/maintenance as needed. Invasive exotic species covers 1% or less in any one acre area.
- (c) Perform the activities described in Exhibit B and ERP 4-109-126294-2
- (d) For the planted areas, plantings must meet the following success criteria within five years after initial planting:
 - i. At least 75 percent of the planted trees have survived throughout the monitoring period and are showing signs of normal growth, based upon standard growth parameters such as height and base diameter, or canopy circumference.
 - ii. At least 80 percent cover by appropriate wetland herbaceous species has been obtained.
 - iii. Hydrologic conditions generally conform to those specified for wetlands in Chapter 62-340, F.A.C..
 - iv. If successful establishment has not occurred as stated above within 5 years following initial planting, then within 30 days of the termination of the monitoring period, the County shall submit to the District a narrative describing the type and causes of failure and a complete set of plans for the redesign or replacement planting of the wetland mitigation area so that the success criteria will be achieved. If an ERP is required for the activity, then the County shall apply for a permit

modification. Within 30 days of District approval and, if applicable, issuance of the permit modification, the permittee must implement the redesign and/or replacement planting. Following completion of such work, success criteria as stated above or modified by subsequent permit must again be achieved. In addition, the monitoring must be conducted.

v. In the event that 50 percent or greater mortality of planted wetland species in any stratum within the mitigation area occurs, the permittee must undertake a remediation program approved by District staff.

Tatum Tract:

- (a) Preserve the entire property in perpetuity by conveying a conservation easement approved in writing by District staff.
- (b) Perform annual inspection and exotic species removal/maintenance as needed. Invasive exotic species covers 1% or less in any one acre area.
- (c) Perform the activities described in Exhibit C.
- (d) Plant the following material at the Tatum Tract:

Planting Plan for Tatum Tract						
Tatum Tract Forested Wetland Enhancement (13.4-Acres)						
Type	Scientific Name	Common Name	% Plants	Feet on Center	Size	Number of Plants
Tree	<i>Acer rubrum</i>	Red maple	25	10	1 gal	401
	<i>Nyssa sylvatica var. biflora</i>	Swamp tupelo	25			401
	<i>Taxodium distichum</i>	Bald Cypress	50			803
<i>Subtotal</i>						1,605
Herb	<i>Osmunda cinnamomea</i>	Cinnamon fern	30	6	1 gal	1,926
	<i>Osmunda regalis</i>	Royal fern	30		1 gal	1,926
	<i>Saururus cernuus</i>	Lizards tail	40		2" Liner	2,568
<i>Subtotal=</i>						6,421
Tatum Tract Forested Wetland Buffer Enhancement (17.1-Acres)						
Type	Scientific Name	Common Name	% Plants	Feet on Center	Size	Number of Plants
Tree	<i>Celtis laevigata</i>	Sugarberry	20	20	1 gal	410
	<i>Ulmus americana</i>	American elm	30			615
	<i>Liquidambar styraciflua</i>	Sweetgum	30			615
	<i>Sabal palmetto</i>	Cabbage palm	20			410

(e) For the planted areas, plantings must meet the following success criteria within five years after initial planting:

i. At least 75 percent of the planted trees have survived throughout the monitoring period and are showing signs of normal growth, based upon standard growth parameters such as height and base diameter, or canopy circumference.

ii. At least 80 percent cover by appropriate wetland or upland herbaceous species has been obtained.

iii. Hydrologic conditions generally conform to those specified for wetlands in Chapter 62-340, F.A.C..

iv. If successful establishment has not occurred as stated above within 5 years following initial planting, then within 30 days of the termination of the monitoring period, the County shall submit to the District a narrative describing the type and causes of failure and a complete set of plans for the redesign or replacement planting of the wetland mitigation area so that the success criteria will be achieved. If an ERP is required for the activity, then the County shall apply for a permit modification. Within 30 days of District approval and, if applicable, issuance of the permit modification, the permittee must implement the redesign and/or replacement planting. Following completion of such work, success criteria as stated above or modified by subsequent permit must again be achieved. In addition, the monitoring must be conducted.

v. In the event that 50 percent or greater mortality of planted wetland species in any stratum within the mitigation area occurs, the permittee must undertake a remediation program approved by District staff.

D. *Monitoring and long-term management requirements.* The County will monitor the planted areas for a total of 5 years following planting. In addition, the County shall furnish the District with two copies of an annual monitoring report on EN-55 for all wetland creation, restoration, and enhancement areas and upland enhancement areas for four growing seasons after establishment of this MOA unless otherwise notified by the District.

The County shall perform exotic species removal and maintenance activities and land management activities as described in this MOA.

The County will operate and maintain the site in a manner consistent with the Plans (Exhibits A, B and C), permits 4-109-126294-1 and 4-109-126294-2, the MOA, and the conservation easement.

- E. *Project Assessment.* Mitigation value was assessed pursuant to the Uniform Mitigation Assessment Method (UMAM) in Chapter 62-345, Florida Administrative Code. The District has determined that the ROMA can provide 25.44 FGUs in Phase 1 and 1.57 FGUs in Phase 2. Total Functional Gain Units (FGUs). The final UMAM assessment is attached as Exhibit D. Because this assessment accounts for time lag and risk, all of the FGUs will be available once the County records the District-approved conservation easements. To track the use of FGUs, the County and District will maintain a list containing the project name, ERP number, FGUs used, and date used, until all FGUs have been used.
- F. *Completion of the mitigation work.* The County is responsible for all work at the ROMA.
- G. *Geographic area where the project may be used.* The FGUs from the ROMA may be used as mitigation for ERPs issued for County projects proposing impacts to herbaceous and forested freshwater wetlands in the District's Basin 8, which is where the ROMA is located.
- H. *Cost accounting, annual review and adjustment.* Because the County will be using the ROMA only for County projects and will not be collecting funds from others to implement the ROMA, and because an MOA is not required for this type of ROMA, the District has determined that a procedure for full cost accounting is not needed in this case.
- I. *Land Acquisition.* The County owns the property and does not need to acquire any lands for the ROMA.
- J. *Preservation of the site.* The County will convey conservation easements to the District, as explained above.
- K. *Funds.* Because the County will not collect moneys from others to implement the ROMA, the District has concluded that a procedure to track funds is not needed in this case.
- L. *Termination.* If the District determines that the County is not in material compliance with the terms and conditions of this MOA, it shall provide the County with written notice of its material non-compliance and give the County ninety (90) calendar days, or another time period mutually agreed upon in writing, to correct the non-compliance. During the time period provided for correcting the non-compliance, the County may not use FGUs as mitigation for newly issued ERPs from the District.

If the County does not correct the material non-compliance within the stated timeframe, the District may terminate use of the remaining FGUs for future ERPs from the District.

If the District determines that the material non-compliance diminishes the value of FGUs already used from the ROMA, then the District shall provide the County with written notice of this determination. The District shall give the County ninety (90) calendar days, or another time period mutually agreed upon in writing, to correct the non-compliance or submit for District approval alternative mitigation for any permits that were not fully mitigated within the ROMA.

The County is obligated to manage the lands in accordance with the plans (Exhibits A-C), the conservation easement, and this MOA, regardless of whether FGUs have been used or terminated.

Section 4. Notices.

All notices required by this MOA shall be in writing and shall be sent by registered or certified mail, return receipt requested, as follows:

To the District: St. Johns River Water Management District
Jacksonville Service Center
7775 Baymeadows Way, Suite 102
Jacksonville, FL 32256
Attention: Christine Wentzel

To the County: St. Johns County
St. Johns County Environmental Division
4040 Lewis Speedway
St. Augustine, FL 32084
Attention: Ryan Mauch

Each party may unilaterally change the person to whom notices are sent by notifying the other party in writing.

Section 5. Effective Date and Term.

This MOA shall become effective upon the date the last party signs the agreement. This MOA shall remain in effect in perpetuity, unless both parties amend or terminate the MOA.

Section 6. Amendments.

This MOA, including its exhibits, may be amended in writing by the District and County.

Section 7. Severance Clause.

The invalidity of one or more of the phrases, sentences, clauses, or articles contained in the MOA shall not affect the validity of the remainder of this MOA, provided that the material purposes of this MOA can be determined and effectuated.

IN WITNESS WHEREOF, the parties have caused this Memorandum of Agreement to be executed.

Approved as to Form and Legality
District Office of General Counsel

By: _____

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

By: _____
Printed Name: _____
Title: _____
Date: _____

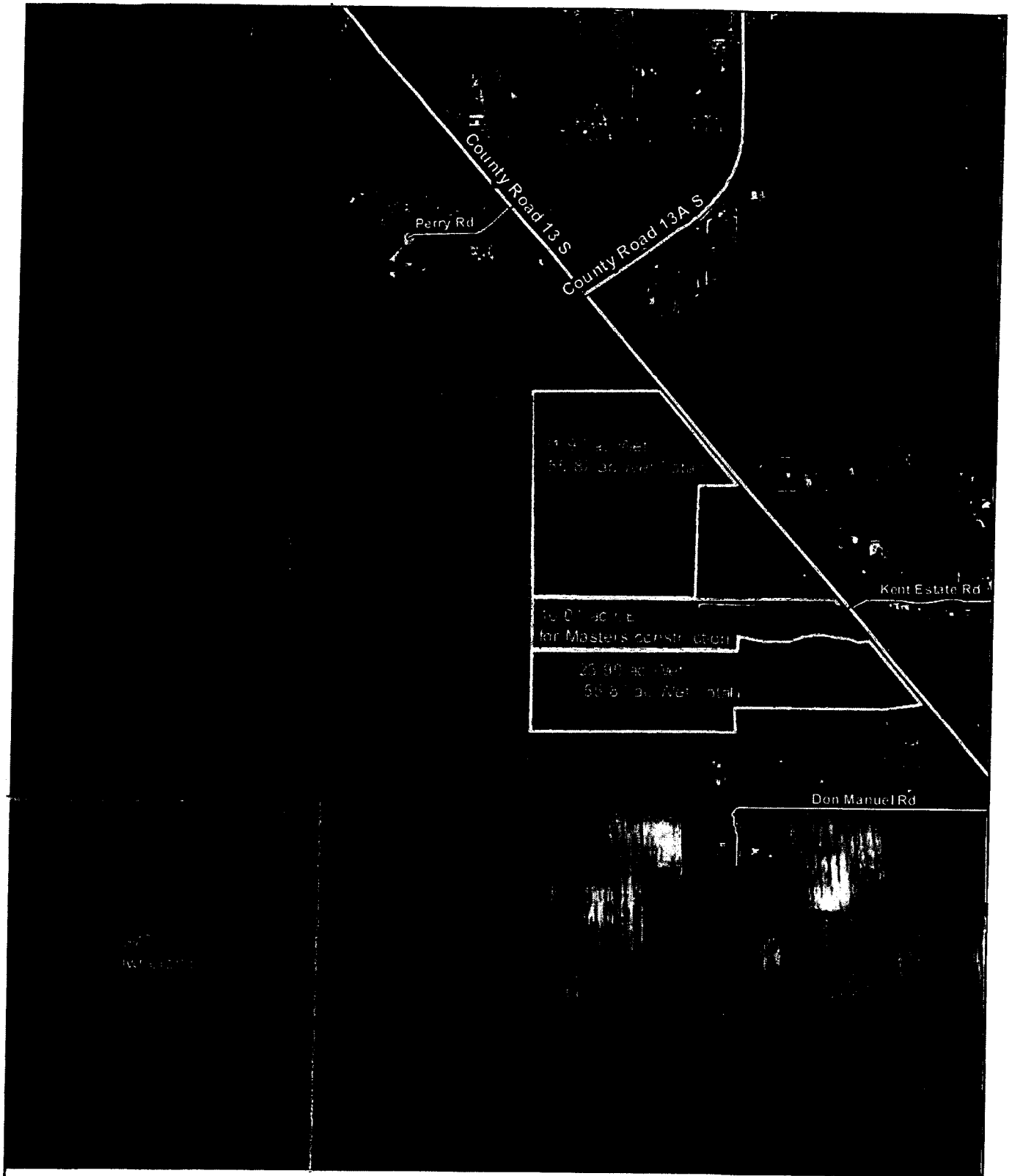
Approved as to Form and Legality
St. Johns County Office of General Counsel

By: _____

ST. JOHNS COUNTY

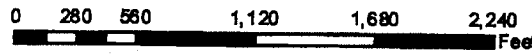
By: _____
Printed Name: _____
Title: _____
Date: _____

Exhibit A



St. Johns County
Environmental Division
(904) 209-0792
Date: 05152013

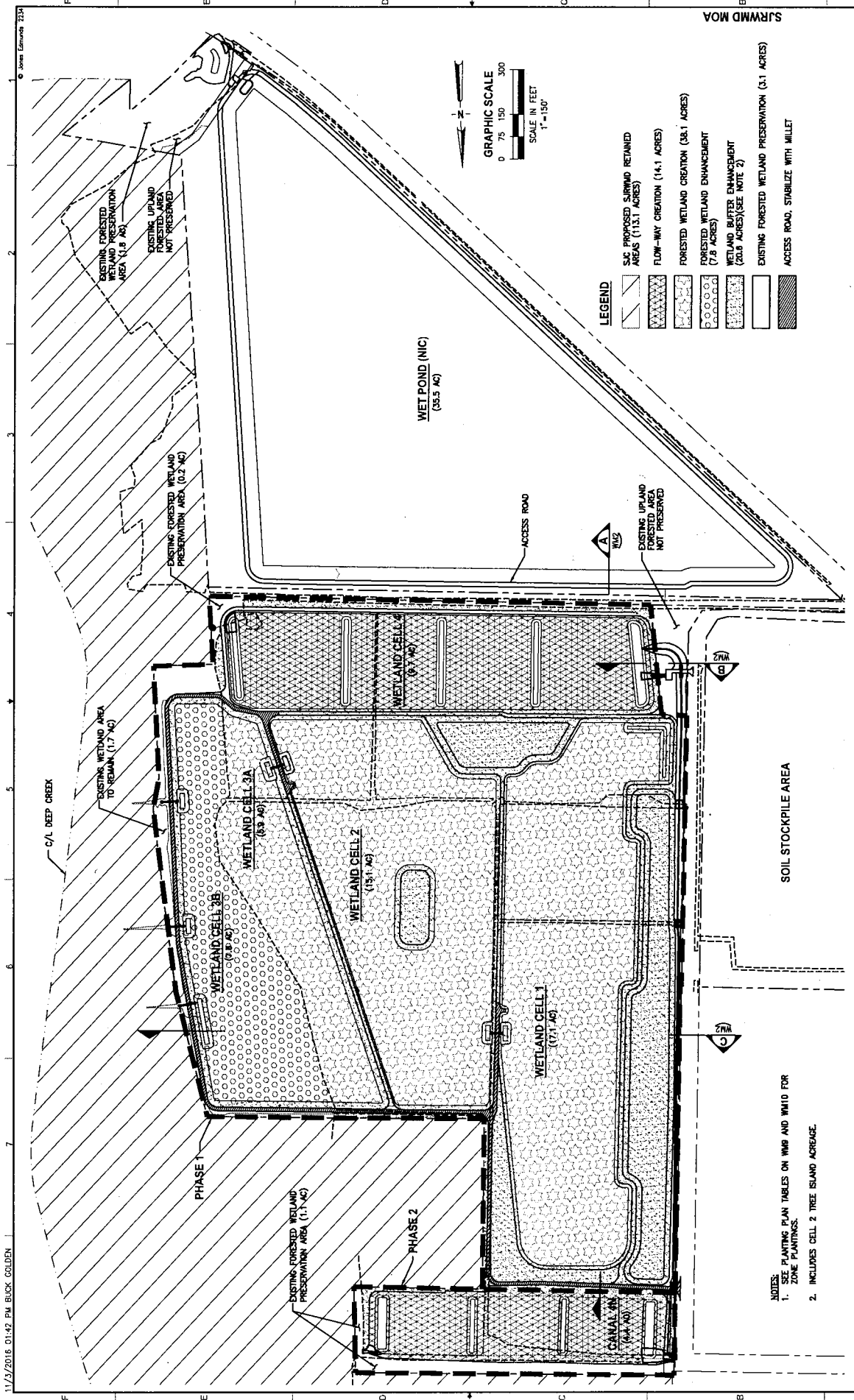
Basin 8 ROMA Floyd



2010 Aerial Imagery

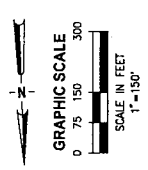
DISCLAIMER.
This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy.





LEGEND

- SAC PROPOSED SURROUND RETAINED AREAS (115.1 ACRES)
- FLOW-WAY CREATION (14.1 ACRES)
- FORESTED WETLAND CREATION (38.1 ACRES)
- FORESTED WETLAND ENHANCEMENT (7.8 ACRES)
- WETLAND BUFFER ENHANCEMENT (20.0 ACRES)(SEE NOTE 2)
- EXISTING FORESTED WETLAND PRESERVATION (3.1 ACRES)
- ACCESS ROAD, STABILIZE WITH MILLET



- NOTES:**
- SEE PLANTING PLAN TABLES ON W10 AND W110 FOR ZONE PLANTINGS.
 - INCLUDES CELL 2 TREE ISLAND ACREAGE.

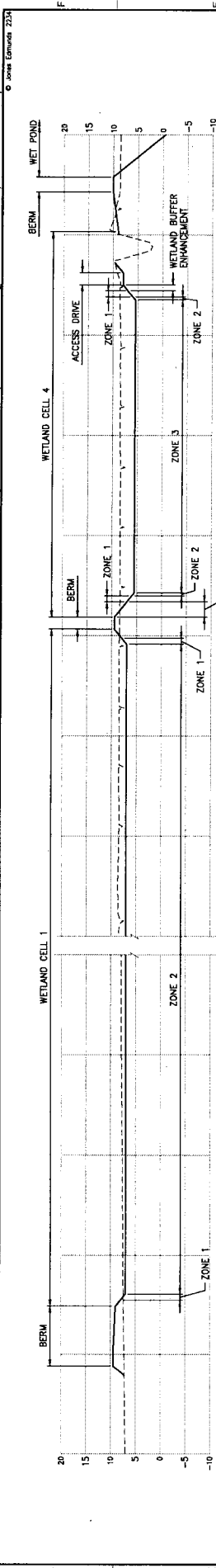
DATE		BY	REVISIONS	JONES EDMUNDS 710 NE WALDO ROAD, GAINESVILLE, FLORIDA 32601 (352) 373-5121		MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA		WETLAND MITIGATION OVERALL SITE PLAN		ESTIMATE OF AUTHORIZATION / DATE APPROVED BY WALTER A. NICKEL P.E. # 856535	PROJECT NO. 19270-092-02 DATE SEP 2016 SCALE AS NOTED SHEET NO. / TOTAL NO. 1 / 1 DRAWN BY WHT
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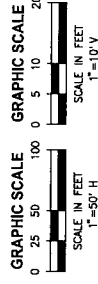
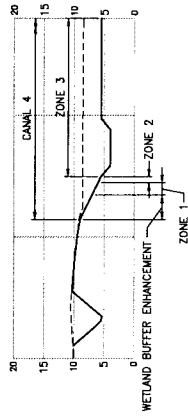
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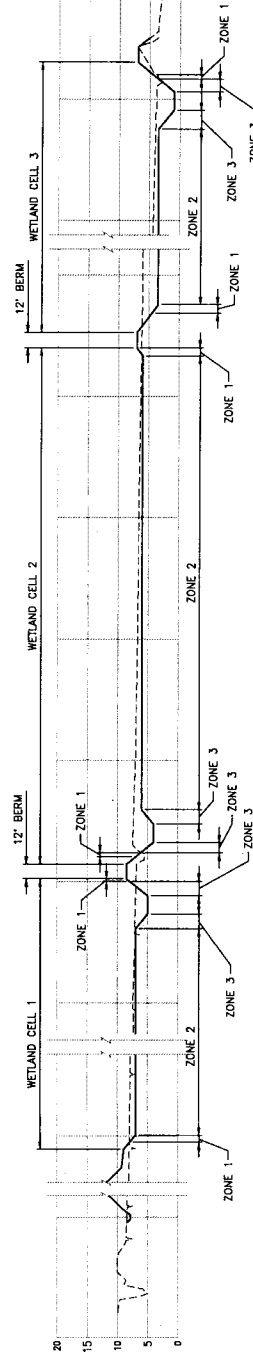
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SECTION A
 1"=50' H
 1"=10' V
 WMI



SECTION B
 1"=50' H
 1"=10' V
 WMI



SECTION C
 1"=50' H
 1"=10' V
 WMI

19270-092-02
 SEP 2016
 WALTER A. NICKEL
 P.E. 88538

DATE: SEP 2016
 SCALE: AS NOTED

PROJECT NO.: 19270-092-02
 INDEX NO.: DWG NO. 2
 WMI2

CERTIFICATE OF AUTHORIZATION #191
 APPROVED BY: WALTER A. NICKEL
 P.E. 88538

WETLAND MITIGATION SECTIONS

MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA

JONES EDMUNDS
 730 HE WILDO ROAD, GAINESVILLE, FLORIDA 32609-3778-2821

DESIGNED: AGOODEN
 DRAWN: AGOLDEN
 CHECKED: WICKEL

BY: [Signature]
 APPROVED: [Signature]

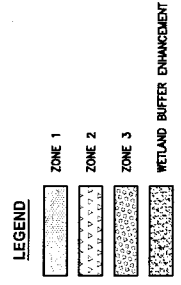
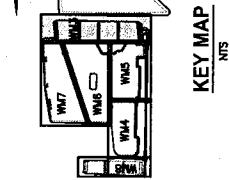
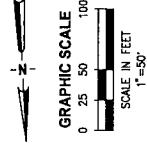
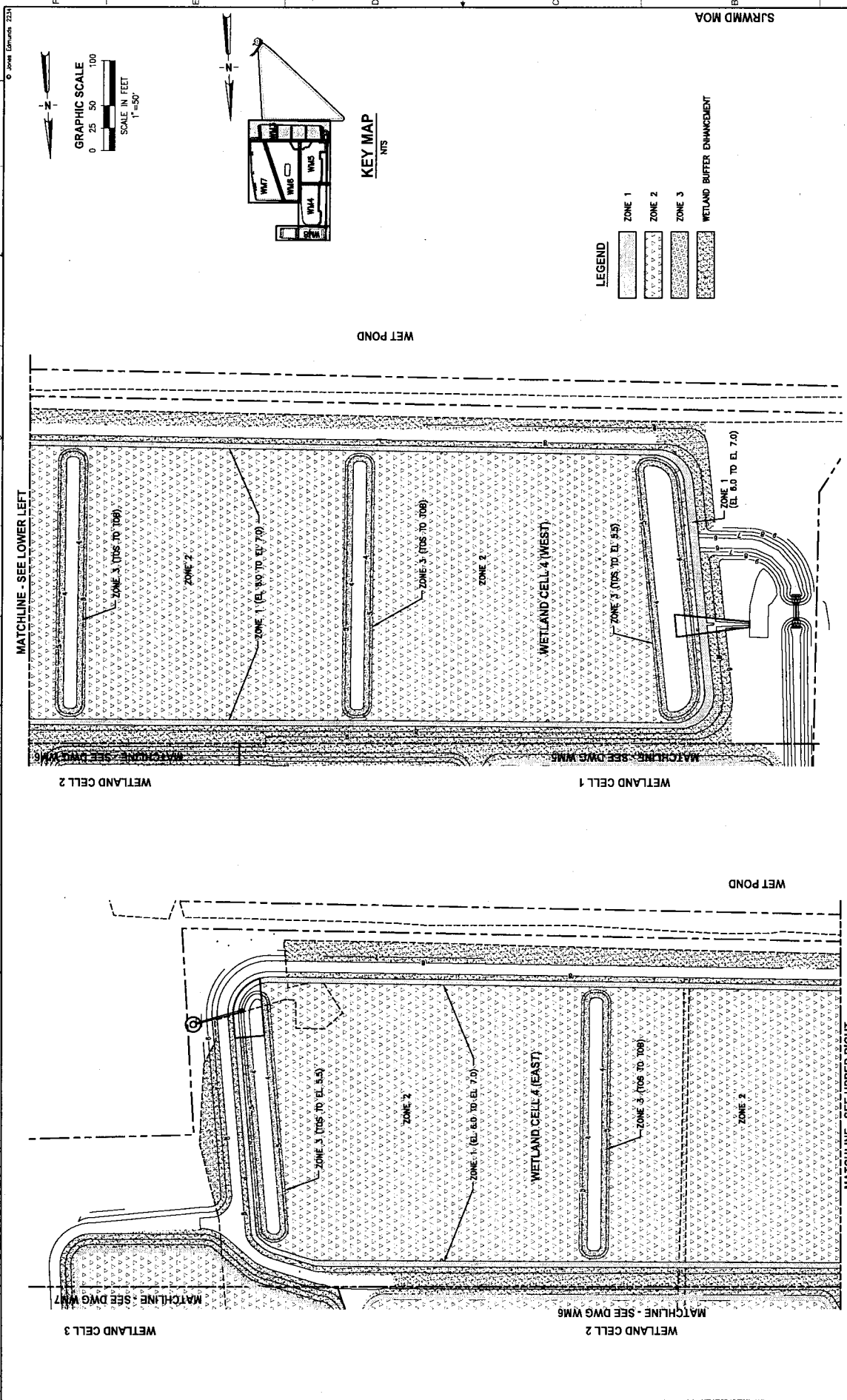
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DWG LOCATION: \HEAD\DRAWING\19270 ST JOHNS COUNTY\922 MASTERS TRACT SHCD\SRRWMD WOA\WETLAND MITIGATION\1927092MOA-WM02.DWG

LAST SAVED: 10/11/2016 11:27 AM GUICK

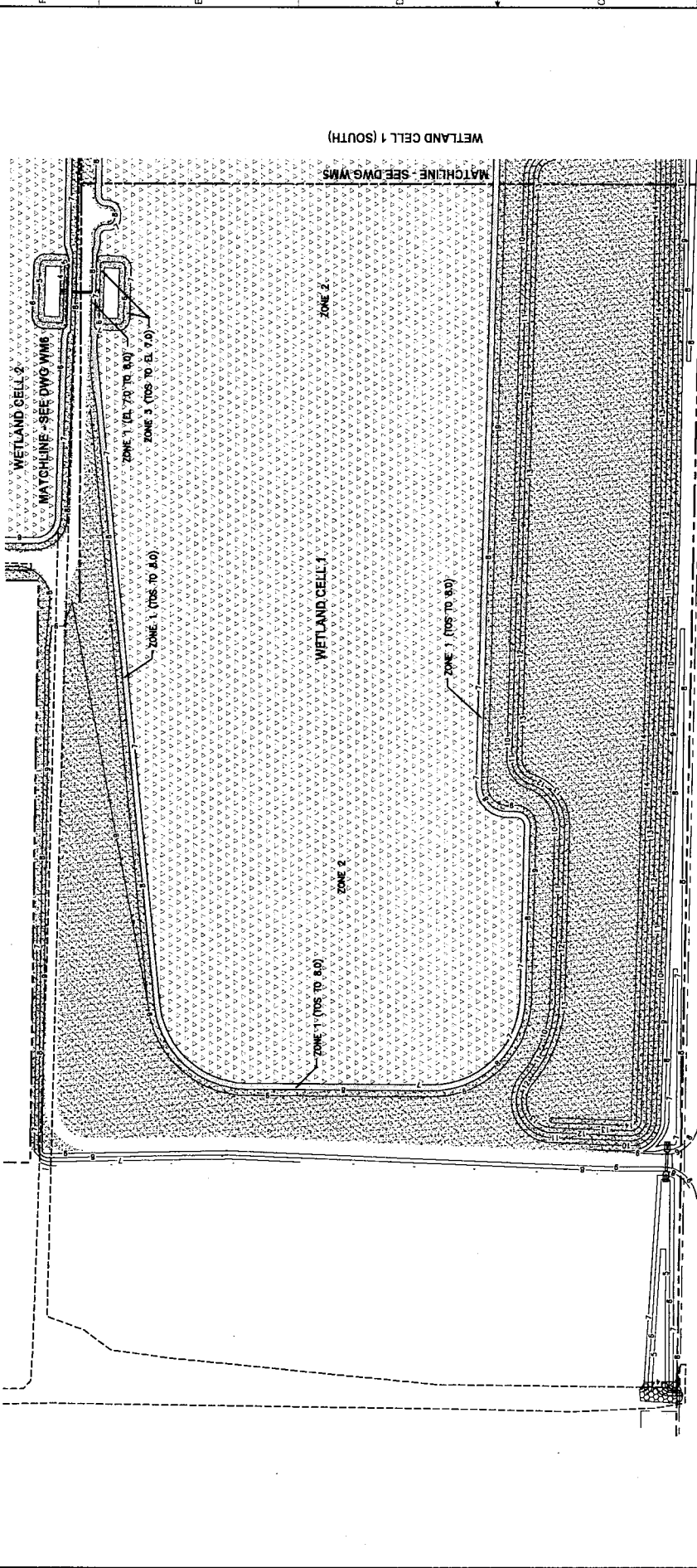
SURVMD MOA

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DATE	19270-092-02	PROJECT NO.	19270-092-02
DATE	SEP 2016	DATE	SEP 2016
SCALE	AS NOTED	INDEX NO.	3
APPROVED BY	WALTER A. NICKEL	INDEX NO.	3
	P.E. # 85535	INDEX NO.	3
WETLAND MITIGATION PLAN - WETLAND CELL 4		MSTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA	
		730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 (352) 377-8821	
DESIGNED	ACCOODEN	CHECKED	WUNCKEL
DRAWN	ASGLDEN	BY	
APPROVED		REVISIONS	
DATE			

10/11/2016 10:33 AM BUCK GOLDEN



LEGEND

- ZONE 1
- ZONE 2
- ZONE 3
- WETLAND BUFFER ENHANCEMENT

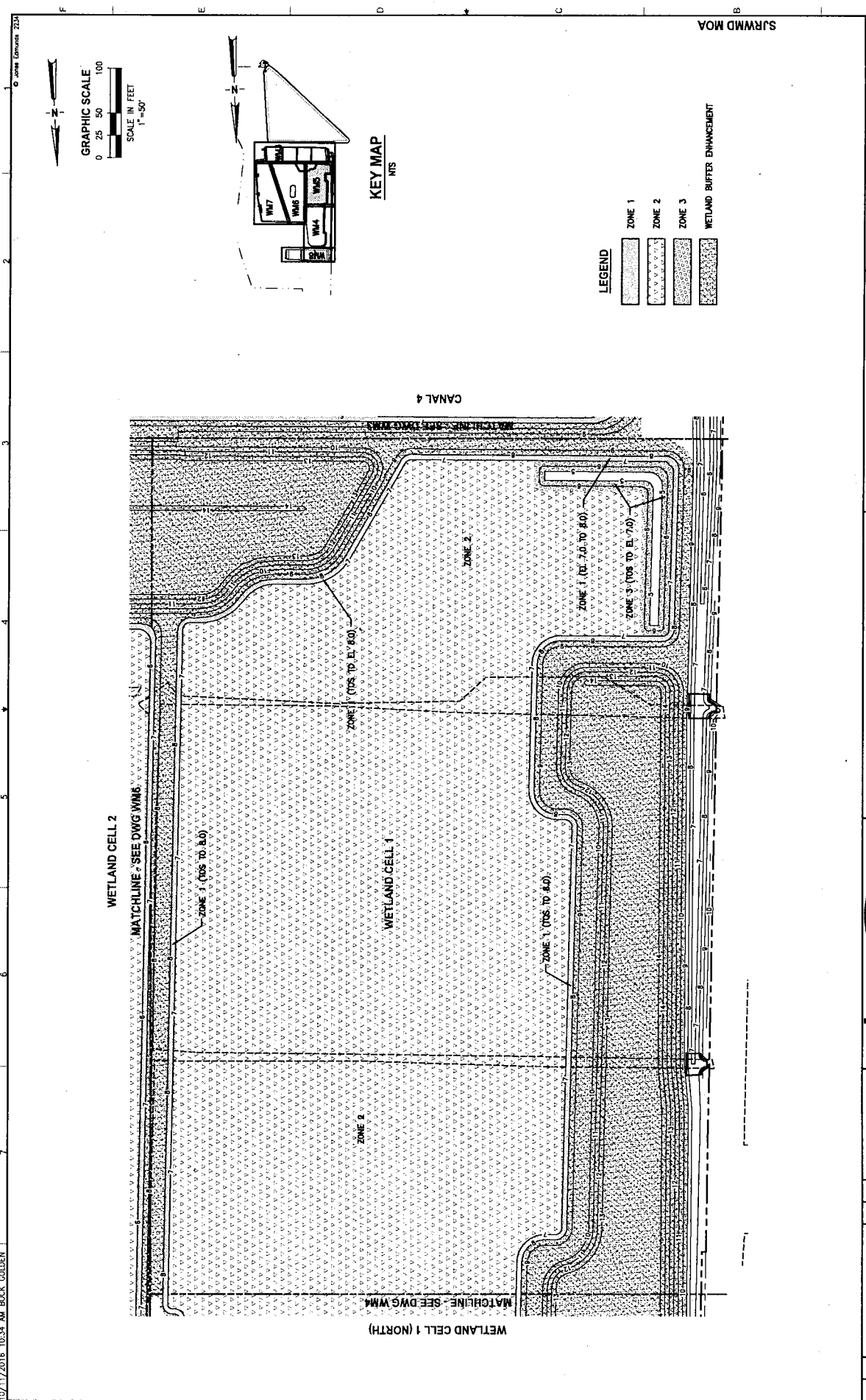
KEY MAP
NTS

GRAPHIC SCALE
SCALE IN FEET
1" = 50'

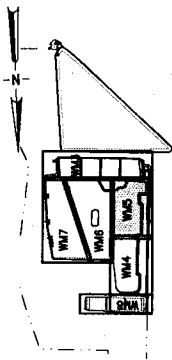
DATE	PROJECT NO.	CERTIFICATE OF AUTHORIZATION #	APPROVED BY
SEP 2016	19270-092-02	191	WALTER A. NICKEL
SCALE	INDEX NO	DWG NO.	DATE
AS NOTED	4	4	10/11/2016
WETLAND MITIGATION PLAN - WETLAND CELL 1 (NORTH)			
MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA			
<small>730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 (352) 377-8821</small>			
DESIGNED	BY	CHECKED	DATE
ASGOLDEN	ASGOLDEN	WINICKEL	
DRAWN	BY	DATE	
REVISIONS	BY	DATE	

SURWMD MOA

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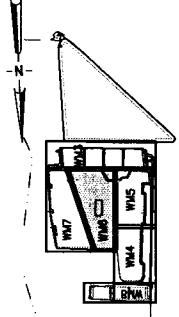


KEY MAP
NTS

- LEGEND**
- ZONE 1
 - ZONE 2
 - ZONE 3
 - WETLAND BUFFER ENHANCEMENT

DATE	PROJECT NO.	CERTIFICATE OF AUTORIZATION (COA)	WETLAND MITIGATION PLAN - WETLAND CELL 1 (SOUTH)
10/11/2016	19270-092-02	APPROVED BY	WALTER A. NICKEL
SEP 2016	DATE	SCALE	AS NOTED
	INDEX NO	INDEX NO	INDEX NO
	5	5	5
	WMS	WMS	WMS
		MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA	
		730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641-1329	
DESIGNED	ACCODDEN	CHECKED	WUNICKEL
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BY		DATE	
REVISIONS		DATE	

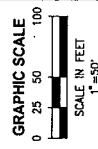
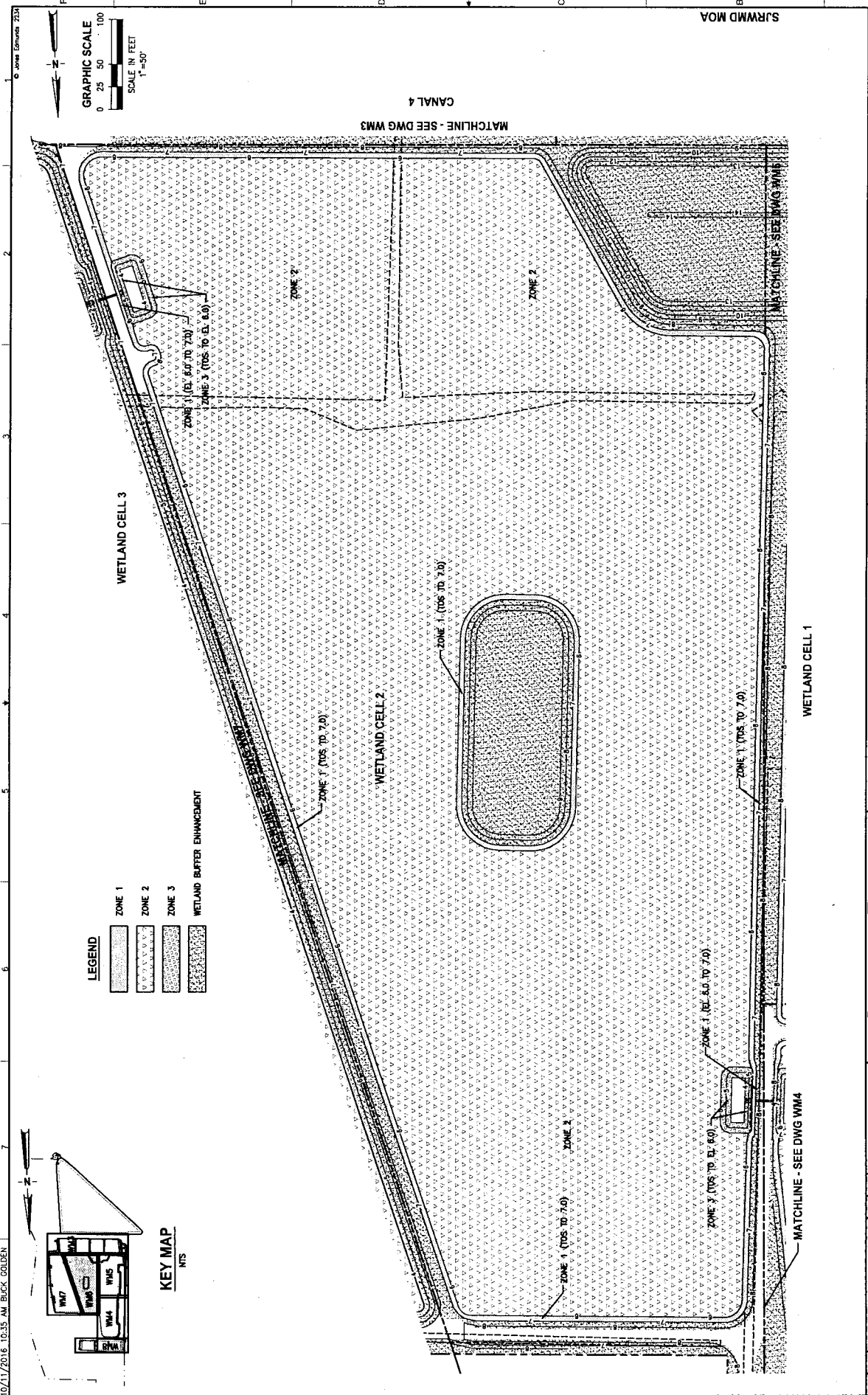
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KEY MAP
NTS

LEGEND

[Pattern]	ZONE 1
[Pattern]	ZONE 2
[Pattern]	ZONE 3
[Pattern]	WETLAND BUFFER ENHANCEMENT



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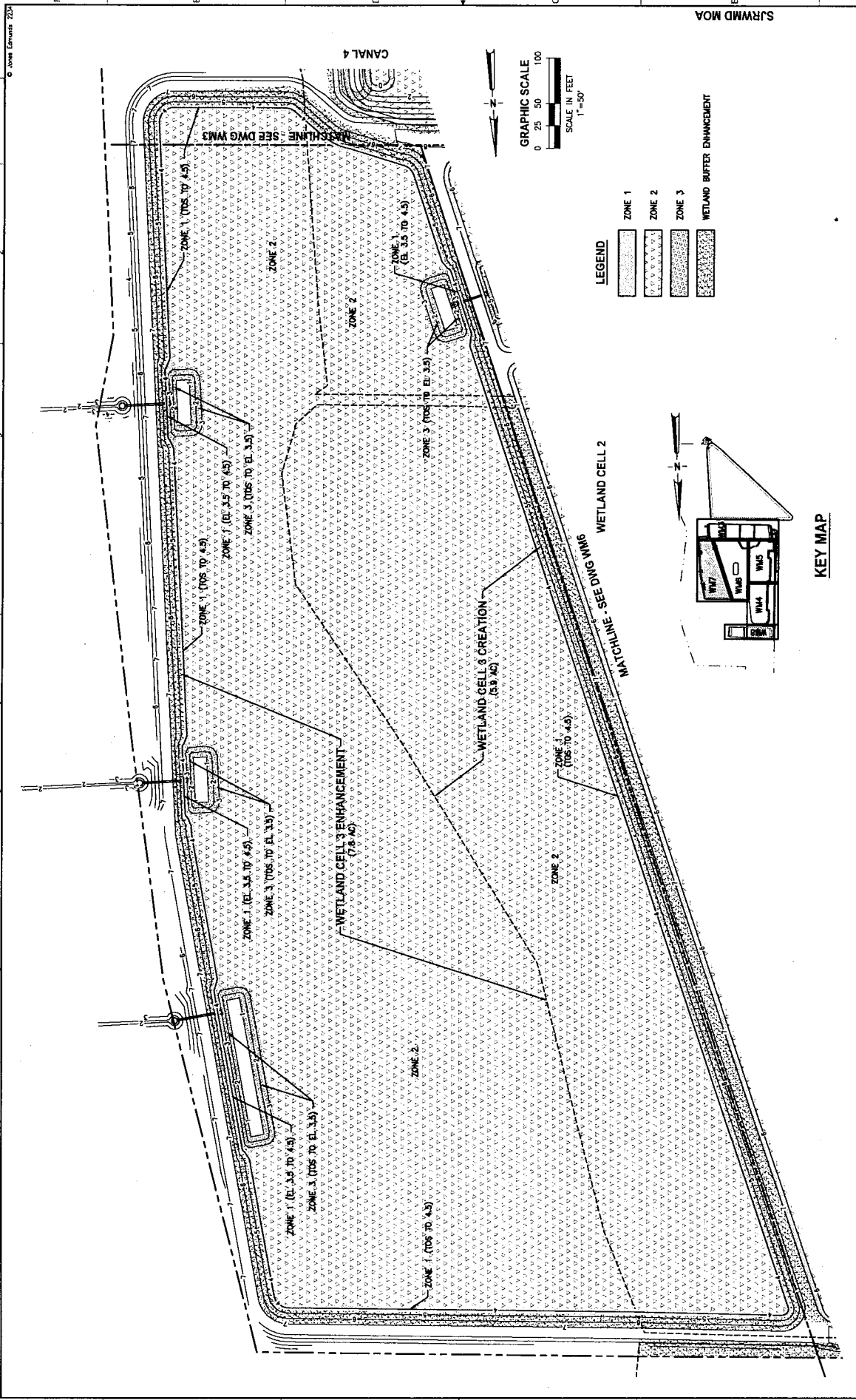
DATE	BY	REVISIONS	APPROVED	DATE	PROJECT NO.	CERTIFICATE OF AUTHORIZATION (COA) APPROVED BY	WETLAND MITIGATION PLAN - WETLAND CELL 2	MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA	DATE	PROJECT NO.
					19270-092-02	WALTER A. NICKEL			SEP 2016	19270-092-02
						WALTER A. NICKEL			SCALE	INDEX NO.
						P.L. 186538			AS NOTED	DWG NO.
										WM6



DESIGNED	AGOODEN
DRAWN	AGOLDEN
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DATE	

DATE	BY	REVISIONS

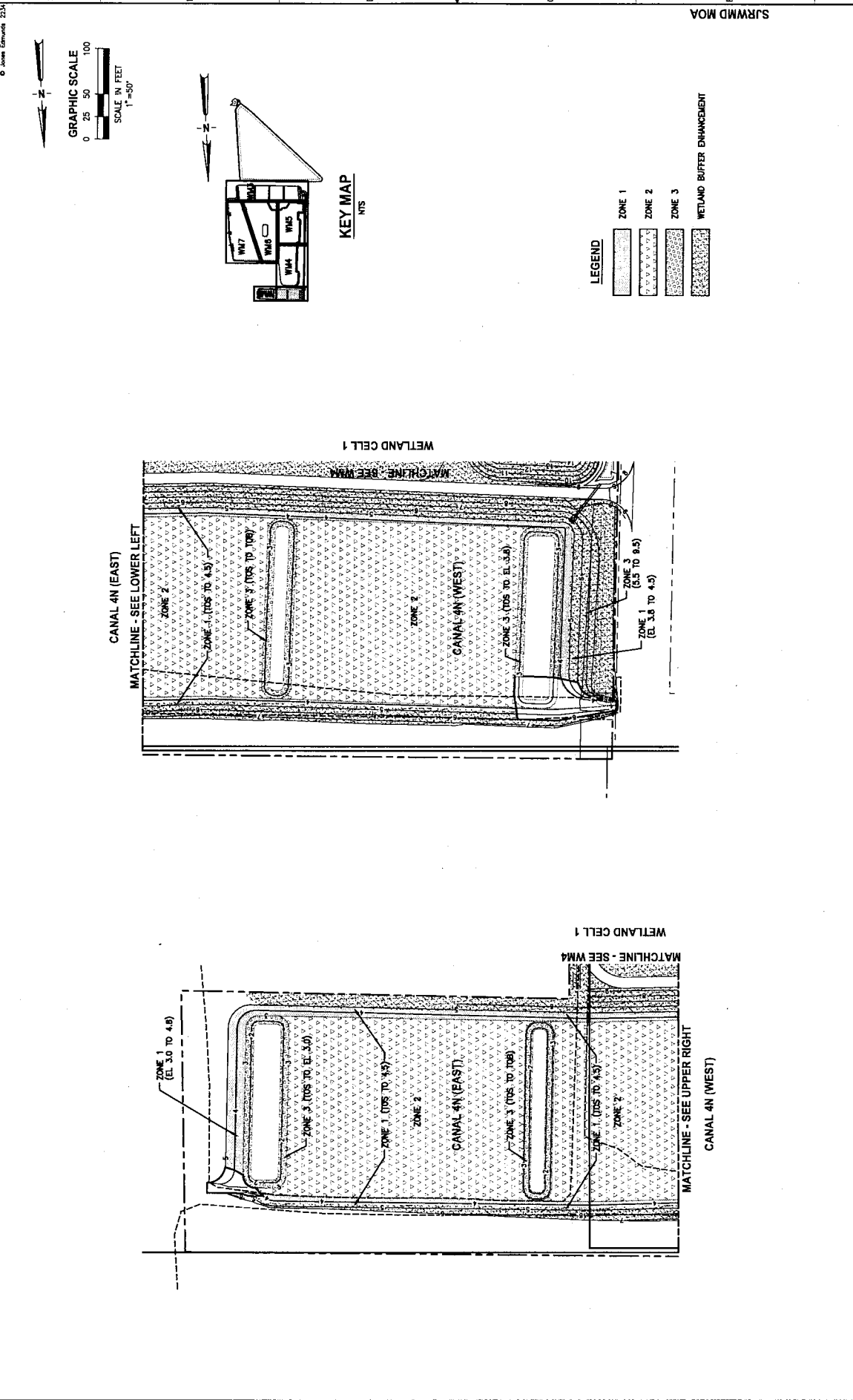
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© Jones Edmunds 7229

LAST SAVED: 9/28/2016 2:39 PM GBUCK DWG LOCATION: \\JACK\DRAWING\19270 ST JOHNS COUNTY\022 MASTERS TRACT SHED\SJRWMD WOA\WETLAND MITIGATION\1927002WOA-WM07.DWG

DATE	PROJECT NO.	CERTIFICATE OF AUTHORIZATION (COA)	APPROVED BY
SEP 2016	19270-002-02		WALTER A. NICKEL
SCALE	INDEX NO.	DATE NO.	DWG NO.
AS NOTED	7	7	WM7
<p>PL E 7 805.03</p>			
<p>ST. JOHNS COUNTY, FLORIDA</p>			
<p>WETLANDS CELL AND STORMWATER HARVESTING</p>			
<p>MASTERS TRACT REGIONAL</p>			
<p>WETLAND MITIGATION PLAN - WETLAND CELL 3</p>			
<p>JONES EDMUNDS</p>			
<p>730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32609-1774-021</p>			
DESIGNED	ASGOLDEN	CHECKED	NICKEL
DRAWN	ASGOLDEN	BY	
DATE			



DATE	10/11/2016	PROJECT NO.	19270-092-02
DR.	BUCK GOLDEN	DATE	SEP 2016
BY	AGOLDEN	SCALE	1"=50'
REVISIONS		INDEX NO	B
		INDEX NO	WMB
		APPROVED BY	WALTER A. NICKEL
		CERTIFICATE OF AUTHORIZATION / FSI	P.E. # 88538
MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA		WETLAND MITIGATION PLAN - CANAL 4N	
		JONES EDMUNDS 330 NE WALDO ROAD, GAINESVILLE, FLORIDA 32601-1323, 352-3221	

SJRWMD MOA

CELL 1 (17.1-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*			
TREE	MYSSA SYLVATICA	BLACKGUM	10	1 GAL	20	1,553			
	ACER RUBRUM	RED MAPLE			20	1,553			
	FRAXINUS CAROLINIANA	POPAH			40	3,106			
	TAXODIUM DISTICHUM	BALD CYPRESS			100	7,766			
SHRUB	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	15	1 GAL	50	1,726			
	HYPERICUM FASCICULATUM	ST. JOHNS WORT			100	3,451			
HERB	JUNCUS EFFUSUS	SOFT RUSH	6	BARE ROOT	30	6,471			
	PAVICUM HEMITOMON	MANDECAINE			25	5,953			
	SAGITTARIA LATIFOLIA	DUCK POTATO			25	2,373			
	SAURURUS CERNUUS	LIZARDS TAIL			20	4,114			
	SUBTOTAL					100	21,571		
	ZONE 3 (0.3-AC) (EL. 5.0'-EL. 7.0')								
HERB	CLADIUM JAMAICENSE	SAWGRASS	3	BARE ROOT	35	587			
	SCORPUS CALIFORNICUS	BULRUSH			30	503			
	NUPHAR LUTEUM	SPATTERDOCK			35	587			
SUBTOTAL					100	1,677			

CELL 2 (15.1-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*			
TREE	QUERCUS LAURIFOLIA	LAUREL OAK	10	1 GAL	25	96			
	ACER RUBRUM	RED MAPLE			20	77			
	CELIS LAEVCATA	SUGARBERRY			15	57			
	SABAL PALMETTO	CABBAGE PALM			25	96			
SHRUB	CARPUNUS CAROLINIANA	MUSCLEWOOD	15	SUBTOTAL	100	57			
	CALLICARPA AMERICANA	BEAUTYBERRY			35	60			
	LYONIA LUCIDA	FETTERBUSH			30	50			
	SABAL MINOR	DWARF PALMETTO			30	50			
	SPARTINA BAKERI	SAND CORDGRASS			35	60			
	JUNCUS EFFUSUS	SOFT RUSH			30	50			
HERB	IRIS SP.	BLUE IRIS	6	2' LINER	35	373			
	JUNCUS EFFUSUS	SOFT RUSH			30	319			
SUBTOTAL					100	1,065			
TREE	MYSSA SYLVATICA	BLACKGUM	10	1 GAL	20	1,363			
	ACER RUBRUM	RED MAPLE			20	1,363			
	FRAXINUS CAROLINIANA	POPAH			20	1,363			
	TAXODIUM DISTICHUM	BALD CYPRESS			40	2,766			
SHRUB	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	15	1 GAL	50	1,537			
	HYPERICUM FASCICULATUM	ST. JOHNS WORT			100	3,074			
HERB	JUNCUS EFFUSUS	SOFT RUSH	6	BARE ROOT	30	4,802			
	PAVICUM HEMITOMON	MANDECAINE			25	3,841			
	SAGITTARIA LATIFOLIA	DUCK POTATO			25	3,841			
	SAURURUS CERNUUS	LIZARDS TAIL			20	19,207			
	SUBTOTAL					100	19,207		
	ZONE 3 (0.1-AC) (EL. 4.0'-EL. 6.0')								
HERB	CLADIUM JAMAICENSE	SAWGRASS	3	BARE ROOT	35	186			
	SCORPUS CALIFORNICUS	BULRUSH			30	166			
	NUPHAR LUTEUM	SPATTERDOCK			35	186			
SUBTOTAL					100	532			

WETLAND CELL 4 (9.7-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*			
HERB	SPARTINA BAKERI	SAND CORDGRASS	3	2' LINER	30	799			
	IRIS SP.	BLUE IRIS			35	932			
	JUNCUS EFFUSUS	SOFT RUSH			35	932			
SUBTOTAL					100	2,662			
HERB	ELEOCHARIS SP.	SPIKERUSH	3	BARE ROOT	10	4,579			
	PAVICUM HEMITOMON	MANDECAINE			15	6,868			
	CLADIUM JAMAICENSE	SAWGRASS			10	4,579			
	THALIA GENCULATA	FIRE FLAG			15	6,868			
	PONTEDERIA CORDATA	PICKERELWEED			10	4,579			
	IRIS VIRGINICA	IRIS			15	6,868			
	SPARTINA ALTERNIFLORA	SAND CORDGRASS			10	4,579			
	SAGITTARIA LATIFOLIA	DUCK POTATO			10	4,579			
	SUBTOTAL					100	45,786		
	ZONE 3 (0.8-AC) (EL. 4.0'-5.5')								
HERB	CLADIUM JAMAICENSE	SAWGRASS	3	BARE ROOT	35	1,118			
	SCORPUS CALIFORNICUS	BULRUSH			35	1,118			
	PONTEDERIA CORDATA	PICKERELWEED			30	958			
SUBTOTAL					100	3,194			

CELL 1 (17.1-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*
TREE	QUERCUS LAURIFOLIA	LAUREL OAK	10	1 GAL	25	120
	ACER RUBRUM	SUGARBERRY			20	96
	CELIS LAEVCATA	SUGARBERRY			15	72
	SABAL PALMETTO	CABBAGE PALM			25	120
SHRUB	CARPUNUS CAROLINIANA	MUSCLEWOOD	15	SUBTOTAL	100	478
	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH			35	75
HERB	LYONIA LUCIDA	FETTERBUSH	6	1 GAL	30	64
	SABAL MINOR	DWARF PALMETTO			30	64
	SPARTINA BAKERI	SAND CORDGRASS			35	466
HERB	IRIS SP.	BLUE IRIS	6	BARE ROOT	35	466
	JUNCUS EFFUSUS	SOFT RUSH			30	389
SUBTOTAL					100	1,331

CELL 3 (13.7-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*			
TREE	QUERCUS LAURIFOLIA	LAUREL OAK	10	1 GAL	25	80			
	ACER RUBRUM	RED MAPLE			20	48			
	CELIS LAEVCATA	SUGARBERRY			15	36			
	SABAL PALMETTO	CABBAGE PALM			25	80			
SHRUB	CARPUNUS CAROLINIANA	MUSCLEWOOD	15	SUBTOTAL	100	240			
	CALLICARPA AMERICANA	BEAUTYBERRY			35	37			
	LYONIA LUCIDA	FETTERBUSH			30	37			
	SABAL MINOR	DWARF PALMETTO			30	32			
	SPARTINA BAKERI	SAND CORDGRASS			35	233			
	IRIS SP.	BLUE IRIS			35	233			
HERB	JUNCUS EFFUSUS	SOFT RUSH	6	2' LINER	30	200			
	JUNCUS EFFUSUS	SOFT RUSH			100	668			
SUBTOTAL					100	888			
TREE	MYSSA SYLVATICA	BLACKGUM	10	1 GAL	20	1,316			
	ACER RUBRUM	RED MAPLE			20	1,316			
	FRAXINUS CAROLINIANA	POPAH			20	1,316			
	TAXODIUM DISTICHUM	BALD CYPRESS			40	2,633			
SHRUB	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	15	1 GAL	50	1,463			
	HYPERICUM FASCICULATUM	ST. JOHNS WORT			100	2,925			
HERB	JUNCUS EFFUSUS	SOFT RUSH	6	BARE ROOT	30	5,485			
	PAVICUM HEMITOMON	MANDECAINE			25	4,571			
	SAGITTARIA LATIFOLIA	DUCK POTATO			25	4,571			
	SAURURUS CERNUUS	LIZARDS TAIL			20	3,657			
	SUBTOTAL					100	18,283		
	ZONE 3 (0.3-AC) (EL. 1.0'-EL. 3.5')								
HERB	CLADIUM JAMAICENSE	SAWGRASS	3	BARE ROOT	35	511			
	SCORPUS CALIFORNICUS	BULRUSH			30	438			
	NUPHAR LUTEUM	SPATTERDOCK			35	511			
SUBTOTAL					100	1,460			

SRWMD MOA

NOTE:

* PLANTING QUANTITIES INCLUDE A 10% INCREASE FOR POTENTIAL MORTALITY.



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MASTERS TRACT REGIONAL
WETLANDS CELL AND STORMWATER HARVESTING
ST. JOHNS COUNTY, FLORIDA

WETLAND MITIGATION PLANTING TABLES

DATE	19270-092-02	PROJECT NO.	
SCALE	NONE	DATE	SEP 2016
WALTER A. NICKEL	APPROVED BY	WALTER A. NICKEL	DATE
PL E 185635	DATE	PL E 185635	DATE

DATE	19270-092-02	PROJECT NO.	
SCALE	NONE	DATE	SEP 2016
WALTER A. NICKEL	APPROVED BY	WALTER A. NICKEL	DATE
PL E 185635	DATE	PL E 185635	DATE

CANAL 4 NORTH (4.4-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*	
HERB	SPARTINA BAKERI	SAND CORDGRASS	3	2' LINER	35	745	
	JUNCUS SP.	BLUE IRIS			35	745	
	JUNCUS EFFRUSI	SOFT RUSH			35	745	
ZONE 2 (3.7-AC) (EL. 3.0-EL. 3.8)						100	2,130
HERB	ELEOCHARIS SP.	SPIKERUSH	3	BARE ROOT	10	1,943	
	PANICUM HEMITOMON	MAIDENHAIR			10	1,943	
	GLADIUM JAMAICENSE	SANGRASS			10	1,943	
	TRIALIA GEMMULATA	FIRE FLAG			20	3,887	
	PONTEDERIA CORDATA	PICKERLWEED			25	4,658	
	SCOTTARIA LATIFOLIA	DUCK POTATO			25	4,658	
ZONE 3 (0.3-AC) (APPROX EL. 2'-3.5')						100	19,433
HERB	GLADIUM JAMAICENSE	SANGRASS	3	BARE ROOT	35	559	
	SCIRPUS CALIFORNICUS	BULRUSH			35	559	
	PONTEDERIA CORDATA	PICKERLWEED			30	479	
SUBTOTAL						100	1,597

WETLAND BUFFER ENHANCEMENT (20.6-AC) - VEGETATION PLANTING PLAN TABLE

TYPE	SCIENTIFIC NAME	COMMON NAME	PLANT SPACING (FT ON CENTER)	PLANT SIZE	% OF PLANT SPECIES	NUMBER OF PLANTS*				
TREE	QUERCUS VIRGINIANA	LIVE OAK	10	1 GAL	15	1,423				
	AGER RUBRUM	RED MAPLE			20	1,897				
	LIQUIDAMBAR STRYCIATA	SWEETGUM			20	1,897				
	SABAL PALMIETA	CABBAGE PALM			15	1,423				
	DIOSPIROS VIRGINIANA	PEFSHIMON			10	949				
	CARYA GLABRA	PIGNOT HICKORY			10	949				
	CARPINUS CAROLINIANA	MUSCLEWOOD			10	949				
	MYRTCA CERIFERA	WAX MYRTLE			100	9,492				
	JULEX GLABRA	GALLBERRY			25	2,108				
	CALLICARPA AMERICANA	BEAUTYBERRY			50	2,108				
CELL 2 TREE ISLAND (EL. 7.0-EL. 9.0')						100	26,354			
SHRUB	QUERCUS VIRGINIANA	LIVE OAK	15	1 GAL	15	50				
	AGER RUBRUM	RED MAPLE			30	101				
	CETIS LAEGUSTA	SUGARBERRY			20	67				
	SABAL PALMIETA	CABBAGE PALM			20	67				
	CARPINUS CAROLINIANA	MUSCLEWOOD			15	52				
	MYRTCA CERIFERA	WAX MYRTLE			35	52				
	JULEX GLABRA	GALLBERRY			30	45				
	CALLICARPA AMERICANA	BEAUTYBERRY			35	52				
	SUBTOTAL						100	149		
	HERB	PANICUM VIRGATUM			SWITCHGRASS	6	2' LINER	50	486	
MUHLENBERGIA CAPILLARIS		MUHLY GRASS	50	486						
SUBTOTAL								100	932	

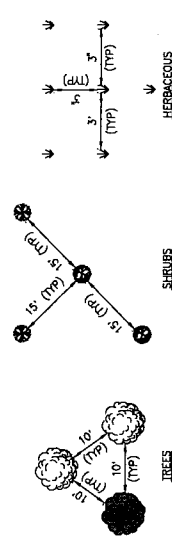
NOTE:
* PLANTING QUANTITIES INCLUDE A 10% INCREASE FOR POTENTIAL MORTALITY.

PLANTING PLAN NOTES

1. ALL PLANT MATERIAL SHALL BE CONTAINER, CROWN, FLORA #1, OR BETTER AS OUTLINED BY GRADES AND STANDARDS FOR NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
2. PLANTING WILL NOT BE CONDUCTED UNTIL AS-BUILT SURVEY HAS BEEN REVIEWED AND ACCEPTED BY ENGINEER AND OWNER.
3. SUBSTITUTIONS TO PLANTING PLAN CAN BE MADE BASED ON PLANT AVAILABILITY AND AS-BUILT SITE CHARACTERISTICS BUT MUST FIRST BE APPROVED BY OWNER'S PROJECT MANAGER.
4. PLANTS INSTALLED IN ZONES 1-4 OF THE CONSTRUCTED WETLANDS SHALL BE INSTALLED IN LARGE GROUPS OF THE SAME SPECIES WITH THE EXCEPTION OF THESE SPECIES.
5. CONTRACTOR SHALL INSTALL BLUE FLAG AND SOFT RUSH IN LARGE GROUPS OF THE SAME SPECIES ON 3 FOOT CENTERS IN CANAL 4 AND AN FLOW-WAY. AND WETLAND CREATION CELLS 1-3. SAND CORDGRASS SHALL BE INSTALLED ON 3 FOOT CENTERS IN THE UPPER PORTION OF WETLAND CREATION CELLS 1-3. SAND CORDGRASS SHALL BE INSTALLED WITH A 10' BUFFER FROM THE UPPER PORTION OF SOFT RUSH TO AVOID A DISTINCT BREAK IN PLANT SPECIES. CONTRACTOR SHALL INSTALL BUTON BUSH ON 15 FOOT CENTERS IN THE LOWER HALF OF ZONE 2 IN CELLS 1, 2, AND 3.
6. CONTRACTOR SHALL RAKE ZONE 2 OF ALL CREATION AREAS TO LOOSEN SOIL PRIOR TO PLANT MATERIAL INSTALLATION.
7. WETLAND BUFFER PLANTINGS SHOULD BEGIN FROM THE TOP OF ZONE 1 IN CREATION AREAS, AND FLOW-WAYS.

WETLAND CREATION CELL NOTE

ZONE 1 REPRESENTS 5:1 SIDE SLOPES FROM TOE OF WETLAND CREATION AREAS UP TO UPLAND GRADE. ZONE 2 REPRESENTS THE WETLAND BASIN.



PLANTING SCHEME

DATE: 10/11/2016 10:29 AM		PROJECT NO.: 19270-092-02	
DRAWN BY: BUCK GOLDEN		DATE: SEP 2016	
CHECKED: WINCKEL		SCALE: NONE	
APPROVED: WINCKEL		APPROVED BY: WALTER A. NICKEL	
DESIGNED: WINCKEL		DATE: SEP 2016	
PROJECT NO.: 19270-092-02		SCALE: NONE	
DRAWN BY: BUCK GOLDEN		DATE: SEP 2016	
CHECKED: WINCKEL		SCALE: NONE	
APPROVED: WINCKEL		APPROVED BY: WALTER A. NICKEL	
DESIGNED: WINCKEL		DATE: SEP 2016	



MASTERS TRACT REGIONAL WETLANDS CELL AND STORMWATER HARVESTING ST. JOHNS COUNTY, FLORIDA

WETLAND MITIGATION PLANTING TABLES, DETAILS, AND NOTES

WETLAND MOA

WETLAND MONITORING & MITIGATION NOTES

1. TO SHOW COMPLIANCE WITH THE PERFORMANCE STANDARDS OUTLINED IN THE USACE PERMIT, CONTRACTOR SHALL COMPLETE THE FOLLOWING:
 - a. PERFORM A TIME-ZERO MONITORING EVENT OF THE PROJECT SITES WITHIN 60 DAYS OF COMPLETION OF THE WETLAND AND UPLAND PLANTING.
 - b. SUBMIT THE TIME-ZERO REPORT TO THE COUNTY WITHIN 45 DAYS OF COMPLETION OF MONITORING EVENT. THE REPORT SHALL INCLUDE A PARAGRAPH DISCUSSING BASELINE CONDITIONS OF THE PROJECT AREAS PRIOR TO INITIATION OF WORK AND A DETAILED PLAN VIEW DRAWING OF ALL ENHANCED/CREATION AREAS. THE REPORT SHALL ALSO INCLUDE AS-BUILT DRAWINGS THAT DEPICT THE CREATION AND ENHANCEMENT ACTIVITIES.
 - c. PERFORM SEMI-ANNUAL MONITORING OF THE WORK AREAS FOR THE FIRST 3 YEARS AND ANNUAL MONITORING THEREAFTER FOR A TOTAL OF 5 YEARS OF MONITORING.
 - d. SUBMIT UP TO FIVE ANNUAL REPORTS TO THE COUNTY WITHIN 45 DAYS OF COMPLETION OF THE MONITORING EVENT (SEMI-ANNUAL MONITORING IS COMBINED INTO ONE REPORT). ANNUAL MONITORING REPORTS SHALL BE A MAXIMUM OF 10 PAGES AND COMPLY WITH REPORTING FORMAT AND REQUIRED CONTENT OUTLINED IN THE USACE PERMIT.
2. SITES WILL BE CONSIDERED SUCCESSFUL AND RELEASED FROM MONITORING AND REPORTING REQUIREMENTS WHEN THE FOLLOWING CRITERIA ARE MET CONTINUOUSLY FOR AT LEAST 1 YEAR WITHOUT INTERVENTION IN THE FORM OF IRRIGATION OR THE ADDITION OR REMOVAL OF VEGETATION:
 - a. 80% COVER OF DESIRABLE WETLAND PLANT SPECIES IN WETLAND CREATION AND ENHANCEMENT AREAS.
 - b. 75% SURVIVAL OF SHRUB AND TREE PLANT MATERIAL.
 - c. POSITIVE TREE GROWTH RATES FOR TWO CONSECUTIVE YEARS.
 - d. LESS THAN 10% COVER BY NUISANCE AND/OR INVASIVE EXOTIC PLANT SPECIES.

MAINTENANCE NOTES

1. COVER OF CATEGORY I AND II INVASIVE EXOTIC PLANT SPECIES, PURSUANT TO THE MOST CURRENT LISTED ON THE FLORIDA INVASIVE PLANT SPECIES LIST, SHALL BE MAINTAINED AT OR BELOW 10% COVER. SPECIES TO BE MAINTAINED AT OR BELOW 10% COVER INCLUDE: (LIPUICHA PERUVIANA), DOG FENNEL (EUPATORIUM CAPILLIFOLIUM), BERMUDA GRASS (CYNODON SP.), BANNA GRASS (PASPALLUM NOTATAUM), AND CATTAIL (TYPHA SPP.) SHALL TOTAL LESS THAN 10 PERCENT IN ALL WETLAND CREATION AND ENHANCEMENT AREAS, AS WELL AS THE WETLAND BUFFER ENHANCEMENT AREA.
2. MAINTENANCE SHALL BE CONDUCTED SEMI-ANNUALLY OR AS NEEDED TO MAINTAIN INVASIVE AND EXOTIC PLANT COVERAGE BELOW 10% WITHIN THE PROPERTY.
3. ALL REMOVED PLANT MATERIAL WILL BE PROPERLY DISPOSED OF OFF-SITE AT A LANDFILL OR OTHER APPROPRIATE WASTE COLLECTION SITE.
4. ONLY HERBICIDES APPROVED FOR AQUATIC APPLICATIONS SHALL BE UTILIZED IN THE WETLAND MITIGATION AREAS.
5. A STATE LICENSED AQUATIC COMMERCIAL PESTICIDES / HERBICIDE APPLICATOR SHALL CONDUCT ALL HERBICIDE APPLICATIONS.
6. NO MOTORIZED VEHICLES SHALL BE USED BEYOND THE LIMITS OF CONSTRUCTION AREAS, SPECIFICALLY NOT WITHIN DESIGNATED CONSERVATION EASEMENT AREAS EXCEPT FOR THE PURPOSE OF IMPLEMENTING THE MITIGATION ACTIVITIES. HAND HELD MECHANIZED EQUIPMENT SHALL ONLY BE UTILIZED IN WETLAND AREAS FOR THE PURPOSE OF REMOVING EXOTIC / NUISANCE SPECIES.



DESIGNED	ASGOLDEN
DRAWN	ASGOLDEN
CHECKED	WICKEL
BY	
DATE	
REVISION	

MASTERS TRACT REGIONAL
WETLANDS CELL AND STORMWATER HARVESTING
ST. JOHNS COUNTY, FLORIDA

WETLAND MITIGATION MONITORING
AND MAINTENANCE PLAN

CERTIFICATE OF AUTHORIZATION / DATE	
APPROVED BY	DATE
WALTER A. NICKEL	SEP 2016
P.E. / 286538	SCALE
	AS NOTED
PROJECT NO.	INDEX NO.
19270-092-02	11
DWG. NO.	WM11

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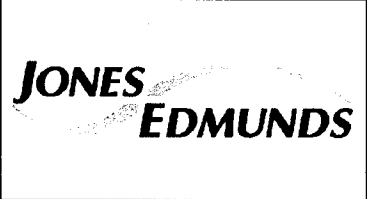
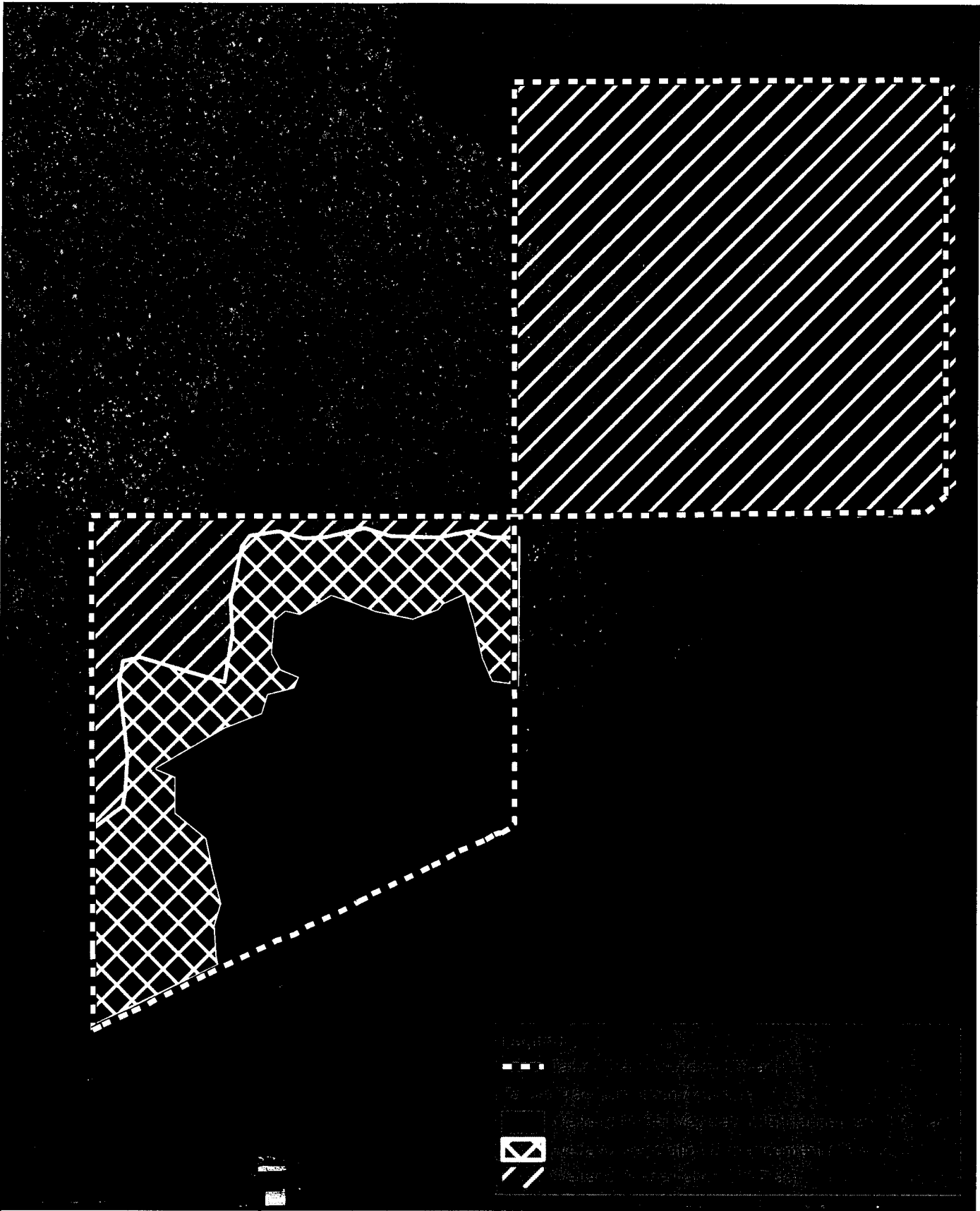


EXHIBIT C
Tatum Tract Mitigation Plan View Map
BASIN 8 ROMA MOA

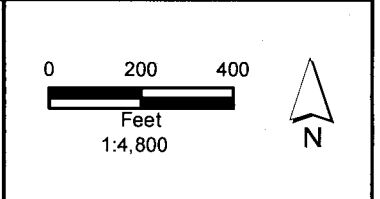


EXHIBIT D

Uniform Mitigation Assessment Method Summary

Site/Project Name: SJC Basin 8 ROMA Mod	Date: December 15, 2016
Application Number: Item Number 1314293	

Assessment Area		Mitigation Type		Location and Landscape Support		Water Environment		Community Structure		Mitigation Delta	Time Lag	Risk	PAF	RFG	Acres	Functional Gain
				Current or w/o Mit	w/ Mit	Current or w/o Mit	w/ Mit	Current or w/o Mit	w/ Mit							
1	Masters WP	Preservation	6	7	6	8	8	8	9	0.07	1.00	1.00	0.60	0.040	3.10	0.12
2	Floyd WP	Preservation	7	8	8	8	8	9	9	0.07	1.00	1.00	0.60	0.040	55.87	2.23
3	Tatum WP	Preservation	6	7	8	8	8	8	8	0.07	1.00	1.00	0.60	0.040	60.70	2.43
4	Masters WC Forested	Creation	0	7	0	9	9	8	8	0.80	1.92	2.00	n/a	0.208	37.40	7.78
5	Masters WE	Enhancement	6	7	4	9	9	2	8	0.40	1.92	1.50	n/a	0.139	7.80	1.08
6	Masters Herbaceous WC and Canal 4	Creation	0	7	0	9	9	0	8	0.80	1.07	1.75	n/a	0.427	10.40	4.44
7	Tatum WE	Enhancement	6	7	8	8	8	5	8	0.13	1.68	1.50	n/a	0.053	13.40	0.71
8	Masters UE	Enhancement	6	7	-	-	-	2	8	0.35	1.92	1.25	n/a	0.146	20.60	3.01
9	Floyd UP	Preservation	0	8	-	-	-	0	7	0.75	1.00	1.00	0.70	0.525	2.77	1.45
10	Tatum UE	Enhancement	6	7	-	-	-	5	8	0.20	1.25	1.25	n/a	0.128	17.10	2.19
11	Phase II - Masters WC Canal 4N	Creation	0	7	0	5	0	0	8	0.67	1.07	1.75	n/a	0.356	4.40	1.57
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
TOTAL															233.54	27.01

TOTALS		Acres	Acres
Mitigation - Upland			
Restoration	0.00	Mitigation - Wetland	52.20
Enhancement	37.70	Creation	0.00
Preservation	2.77	Restoration	21.20
Total Upland Mitigation	40.47	Enhancement	119.67
		Preservation	193.07