



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVE, SUITE 120
TAMPA, FLORIDA 33610-8302

January 23, 2017

REPLY TO
ATTENTION OF

Regulatory Division
West Branch
Tampa Permits Section
SAJ-2014-03511 (NWP-LEO)

Manatee County Board of County Commissioners
c/o Charlie Hunsicker
5502 33rd Ave Dr W
Bradenton, FL 34209
via email: charlie.hunsicker@mymanatee.org

Dear Applicant:

Your application for a Department of the Army permit received on October 5, 2017, has been assigned number SAJ-2014-03511. A review of the information and drawings provided shows the proposed work includes backfilling 9,482 linear feet of ditches, re-grading 2.67 acres of wetlands, and installing one ditch block in an old agricultural ditch in order to re-establish natural hydroperiods to wetlands in the project area. Project is located at Duette Preserve Park in Section 10, Township 34 South, Range 21 East, Manatee County, Florida.

Your project, as depicted on the enclosed drawings, is authorized by Nationwide Permit (NWP) 27: Aquatic Habitat Restoration, Establishment, and Enhancement Activities. This authorization is valid until **March 18, 2022**. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Please access the U.S. Army Corps of Engineers' (Corps) Jacksonville District's Regulatory Internet page to access Internet links to view the Final Nationwide Permits, Federal Register Vol. 82, dated January 6, 2017, specifically pages 1983 to 2008, and the table of Regional Conditions. The Internet page address is:

<http://www.saj.usace.army.mil/Missions/Regulatory.aspx>

Please be aware this Internet address is case sensitive and should be entered as it appears above. Once there you will need to click on "Source Book"; and, then click on "Nationwide Permits." These files contain the description of the Nationwide Permit authorization, the Nationwide Permit general conditions, and the regional conditions, which apply specifically to this verification for NWP 27. Enclosed is a list of General Conditions, which apply to all Department of the Army authorizations. You must comply with all of the special and general conditions and any project specific condition of this authorization or you may be subject to enforcement action. In the event you have not completed construction of your project within the specified time limit, a separate application or re-verification may be required.

The following project-specific conditions are included with this authorization:

1. **Reporting Address:** The Permittee shall submit all reports, documentation, and correspondence required by conditions of this permit to the following address: [SAJ-RD-](#)

Enforcement@usace.army.mil. The Permittee shall reference this permit number, SAJ-2014-03511, on all submittals.

2. **Commencement Notification:** Within 10 days from the date of initiating the work authorized by this permit, the Permittee shall provide a written notification of the date of commencement of authorized work to the Corps.
3. **Self-Certification:** Within 60 days of completion of the work authorized by this permit, the Permittee shall complete the enclosed "Self-Certification Statement of Compliance" form and submit it to the Corps. In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the "Self-Certification Statement of Compliance" form. The description of any deviations on the "Self-Certification Statement of Compliance" form does not constitute approval of any deviations by the Corps.
4. **Eastern Indigo Snake Protection Measures and Inspection:** Permittee shall comply with U.S. Fish and Wildlife Service's "Standard Protection Measures for the Eastern Indigo Snake" dated August 12, 2013, as provided in Attachment of this permit. All gopher tortoise burrows, active or inactive, shall be evacuated prior to site manipulation in the vicinity of the burrow. If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent permit. The excavation method selected shall minimize the potential for injury of an indigo snake. The Permittee shall follow the excavation guidance provided in the most current FWC Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise>. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Holes, cavities, and snake refugia other than gopher tortoise burrows shall be inspected each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work shall commence until the snake has vacated the vicinity of the proposed work.
5. **Regulatory Agency Changes:** Should any other agency require and/or approve changes to the work authorized or obligated by this permit, the Permittee is advised that a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit from the Tampa Permits Section.
6. **Erosion Control:** Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area into waters of the United States. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control

measures shall remain in place and be maintained until all authorized work is completed and the work areas are stabilized.

- 7. Fill Material:** The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.
- 8. Posting of Permit:** The Permittee shall have available and maintain for review a copy of this permit and approved plans at the construction site.
- 9. Cultural Resources/Historic Properties:** No structure or work shall adversely affect impact or disturb properties listed in the National Register of Historic Places (NRHP) or those eligible for inclusion in the NRHP. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

This authorization does not obviate the necessity to obtain any other Federal, State, or local permits, which may be required. Prior to the initiation of any construction, projects qualifying for this Regional General permit must qualify for an exemption under section 403.813(1), F.S. or 373.406, F.S., or otherwise be authorized by the applicable permit required under Part IV of Chapter 373, F.S., by the Department of Environmental Protection, a water management district under section 373.069, F.S., or a local government with delegated authority under section 373.441, F.S., and receive Water Quality Certification (WQC) and applicable Coastal Zone Consistency Concurrence (CZCC) or waiver thereto, as well as any authorizations required for the use of state-owned submerged lands under Chapter 253, F.S., and, as applicable, Chapter 258, F.S. You should check State-permitting requirements with the Florida Department of Environmental Protection or the appropriate water management district.

If you are unable to access the internet or require a hardcopy of any of the conditions, limitations, or expiration date for the above referenced NWP, please contact Leanne Obra by telephone at 813-769-7071.

Thank you for your cooperation with our regulatory program. The USACE Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise.

Sincerely,

Leanne Obra
Project Manager

Enclosures:

1. General Conditions of 33CFR Part 320-330 (1 page)
2. Self-Certification Statement of Compliance (1 page)
3. Permit Transfer Request (1 page)
5. Standard Protection Measures for the Eastern Indigo Snake – 2013 (3 pages)
4. Project Drawings (14 pages)

Copies Furnished:

1. Alissa Powers, Env Program Manager, Parks and Natural Resource Department,
alissa.powers@mymantee.org
2. CESAJ-RD-PE, USACE Enforcement Section

GENERAL CONDITIONS
33 CFR PART 320-330

1. The time limit for completing the work authorized ends on the **March 18, 2022**.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow a representative from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Application/Permit Number: SAJ -2014-03511

Permittee's Name & Address (please print or type): _____

Telephone Number: _____

Location of the Work: _____

Date Work Started: _____ Date Work Completed: _____

PROPERTY IS INACCESSIBLE WITHOUT PRIOR NOTIFICATION: YES _____ NO _____

**TO SCHEDULE AN INSPECTION PLEASE CONTACT _____
AT _____**

Description of the Work (e.g. bank stabilization, residential or commercial filling, docks, dredging, etc.): _____

Acreage or Square Feet of Impacts to Waters of the United States: _____

Describe Mitigation completed (if applicable): _____

Describe any Deviations from Permit (attach drawing(s) depicting the deviations):

I certify that all work, and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

Signature of Permittee

Date

DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST

PERMIT NUMBER: SAJ-2014-03511

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.

To validate the transfer of this permit and the associated responsibilities associated with compliance with its terms and conditions, have the transferee sign and date below and mail to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, FL 32232-0019.

(TRANSFEREE-SIGNATURE)

(SUBDIVISION)

(DATE)

(LOT)

(BLOCK)

(NAME-PRINTED)

(STREET ADDRESS)

(MAILING ADDRESS)

(CITY, STATE, ZIP CODE)

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

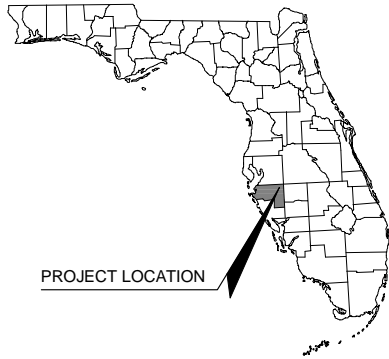
DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

THESE PLANS AND SPECIFICATIONS ARE PREPARED UNDER THE CONTRACT OF PROFESSIONAL SERVICES BETWEEN KIMLEY-HORN AND ASSOCIATES, INC. AND MANATEE COUNTY. THE CONTRACT NUMBER IS W1700032. THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF KIMLEY-HORN AND ASSOCIATES, INC. AND SHALL BE KEPT IN THE OFFICE OF KIMLEY-HORN AND ASSOCIATES, INC. UNTIL THE PROJECT IS COMPLETE. NO PART OF THESE PLANS AND SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF KIMLEY-HORN AND ASSOCIATES, INC.



CONSTRUCTION PLANS FOR MANATEE COUNTY LAKE MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 (MANATEE COUNTY WORK ASSIGNMENT # W1700032) JUNE 2017

SECTION 4, 5, 6, TOWNSHIP 34 SOUTH, RANGE 22 EAST
27°33'09.7"N 82°07'25.3"W

This item has been electronically signed and sealed by Robert B. Conerly, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

PROJECT CONTACTS

OWNER/APPLICANT:
 MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS
 MANATEE COUNTY PARKS AND NATURAL RESOURCES DEPARTMENT
 PO BOX 100
 BRADENTON, FLORIDA 34205
 CONTACT: CHARLIE HUNSICKER
 PHONE: (941) 742-5923

ENGINEER:
 KIMLEY-HORN AND ASSOCIATES, INC.
 116 SOUTH KENTUCKY AVE
 LAKELAND, FLORIDA 33801
 PHONE: 863-701-8702
 CONTACT: ROBERT "BO" CONERLY, P.E.

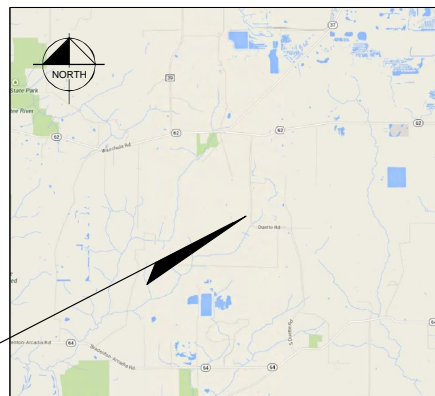
ENVIRONMENTAL SCIENTIST:
 MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS
 1112 MANATEE AVENUE WEST, SUITE 203
 BRADENTON, FL 34206
 PHONE: (941)-742-5980
 CONTACT: ALISSA POWERS P.W.S.

SURVEYOR:
 HYATT SURVEY SERVICES, INC
 11007 8TH AVENUE EAST
 BRADENTON, FL 34212
 PHONE: 941-748-4693
 CONTACT: RUSSELL P. HYATT, PSM

UDAR SOURCE:
 SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
 PHONE: 352-798-7211

FLORIDA POWER AND LIGHT:
 PHONE: 941-776-6200

PROJECT LOCATION



VICINITY MAP
N.T.S.

| Sheet List Table | |
|------------------|-----------------------------------|
| Sheet Number | Sheet Title |
| C100 | COVER SHEET |
| C200 | GENERAL NOTES |
| C300 | OVERALL SITE AERIAL |
| C400 | OVERALL GRADING AND DRAINAGE PLAN |
| C401-C409 | GRADING AND DRAINAGE PLAN |
| C500 | TYPICAL SECTIONS |

GENERAL SITE CONSTRUCTION NOTES

- THE PURPOSE OF THIS PROJECT IS ECOLOGICAL RESTORATION. THE CONTRACTORS WORKING ON THIS SITE SHALL TAKE GREAT CARE IN AVOIDING UNNECESSARY IMPACTS TO WETLAND, VEGETATION, AND ANIMALS.
- THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED PRIOR TO BIDDING TO CONDUCT INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT MAY BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE CONTRACTOR SHALL OBTAIN AND/OR VERIFY EXISTENCE OF ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS NOT FURNISHED BY THE OWNER.
- PRIOR TO THE START OF CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE STATE ONE CALL (1-800-432-4770)", MANATEE COUNTY PUBLIC WORKS DEPARTMENT, FLORIDA POWER & LIGHT, VERIZON AND ANY OTHER UTILITIES (ELECTRIC, PHONE, GAS, CABLE, ETC.) IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING UTILITIES FROM DAMAGE.
- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH NRCS STANDARDS AND SPECIFICATIONS.
- IF HUMAN REMAINS OR ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR MUST STOP WORK IMMEDIATELY AND PROMPTLY NOTIFY THE PROJECT MANAGER.
- THE CONTRACTOR SHALL NOT ENTER UPON, OR ALTER THE WETLAND PRESERVE AREAS THAT MAY BE ONSITE OR DIRECTLY ADJACENT TO THE PROJECT AREA EXCEPT AS NOTED IN THESE DRAWINGS. ALL WORK PERFORMED IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINE RESULTING FROM VIOLATION OF PERMIT CONDITIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE AND VERIFY ALL CUT AND FILL QUANTITIES OF EARTHWORK FOR THE PROJECT. A BULKING FACTOR SHOULD BE TAKEN INTO ACCOUNT WHEN FIGURING VOLUMES OF FILL PLACEMENT.
- IMMEDIATELY BEFORE REQUESTING FINAL INSPECTIONS, THE CONTRACTOR SHALL CHECK ALL LINES AND DRESS TO THE PROPER GRADES/CONTOURS. ALL AREAS ARE TO BE STABILIZED AND MAINTAINED UNTIL PERFORMED. THE CONTRACTOR SHALL MAKE ALLOWANCES WHEN ROUGH GRADING FOR THE FINISHED GRADES IN THESE AREAS.
- POST GRADING SOIL CONDITIONS SHALL BE APPROPRIATE FOR PLANTING WITH LIMITED COMPACTION AS DETERMINED BY THE PROJECT ECOLOGIST.
- ANY DISTURBED AREA WILL BE SEEDED/MULCHED, HYDROSEEDDED, OR SODDED OR PLANTED WITH MATERIALS AS SPECIFIED IN THE PLANS.
- ALL PLANT MATERIAL TO BE INSTALLED SHALL BE HEALTHY, IN GOOD CONDITION, FREE FROM DISEASE AND APPROVED BY A QUALIFIED ECOLOGIST PRIOR TO INSTALLATION.
- DURING CONSTRUCTION OF SPOIL REMOVAL SITES, WORK WILL BE DONE FROM UPLANDS TO THE EXTENT POSSIBLE. IN AREAS WHERE EQUIPMENT IS USED TO PERFORM SPOIL REMOVAL, IS REQUIRED TO CROSS WETLANDS/WATERS OF THE UNITED STATES THE PROJECT ECOLOGIST WILL MONITOR THE OPERATION AND ENSURE MINIMAL DAMAGE TO SOIL AND VEGETATION OCCURS. NO EXCAVATED MATERIAL WILL BE PLACED IN WETLANDS AND ANY ALTERATIONS TO GRADE FROM SPOIL REMOVAL WILL BE REPAIRED.
- NO DEWATERING IS PROPOSED. IF DEWATERING IS TO OCCUR, PRIOR APPROVAL FROM SFWMD WILL BE OBTAINED BY CONTRACTOR.

CALL 2 WORKING DAYS BEFORE YOU DIG
811
 IT'S THE LAW
 DIAL 811
 Know what's below. Call before you dig.
 FLORIDA POWER AND LIGHT

THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

PREPARED BY
Kimley-Horn
 © 2017 KIMLEY-HORN AND ASSOCIATES, INC.
 116 SOUTH KENTUCKY AVENUE, LAKELAND, FL 33801
 PHONE: 863-701-8702
 WWW.KIMLEY-HORN.COM
 CA00000696

| | |
|---|---|
| © 2017 KIMLEY-HORN AND ASSOCIATES, INC. 116 SOUTH KENTUCKY AVENUE, LAKELAND, FL 33801 WWW.KIMLEY-HORN.COM | No. _____ REVISIONS DATE |
| MANATEE COUNTY LAKE MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 PREPARED FOR MANATEE BOARD OF COUNTY COMMISSIONERS BRADENTON, FL | COVER SHEET |
| MAN PROJECT # _____ DATE _____ SCALE AS SHOWN DESIGNED BY REC DRAWN BY JMW CHECKED BY JMW | LICENSED PROFESSIONAL ROBERT B. CONERLY, P.E. FLORIDA LICENSE NUMBER 95291 |
| SHEET NUMBER C100 | |

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATIONS AND CONSERVATION PRACTICES STANDARD LATEST EDITION AND MANATEE COUNTY STANDARDS AND SPECIFICATIONS AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK. AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL LEAVE AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK AND ALL OTHER DELETERIOUS MATERIAL.
3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME, IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY. THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES, IF ANY, WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
8. ALL COPIES OF CONTRACT, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS. ALL SURVEY COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY WELLS DISCOVERED ON SITE. WELLS THAT HAVE NOT BEEN IDENTIFIED BY A LICENSED WELL DRILLING CONTRACTOR UPON NOTIFICATION BY THE OWNER/ENGINEER, IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
12. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED THAT MAY BE IMPACTED BY PROJECT ACTIVITIES MUST BE IDENTIFIED AND REPORTED TO THE OWNER AND ENGINEER. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY TREE REMOVAL PERMITS FOR TREES THAT ARE TO BE REMOVED AS PART OF THIS CONTRACT. TREE PROTECTION FENCING IS REQUIRED TO PREVENT IMPACTS TO PRESERVED TREES FROM CONSTRUCTION ACTIVITIES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 2 WORKING DAYS BEFORE YOU DIG



GRADING AND DRAINAGE NOTES

1. ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR NRCS SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
3. ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDDED/SODDED UNLESS INDICATED OTHERWISE ON THE PLAN.
4. ALL AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SECTIONS AS INDICATED ON THE DRAWINGS.
5. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
6. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
7. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. TOPSOIL AND ORGANIC MATTER MAY BE PLACED WITHIN DITCHES TO BE FILLED AS DIRECTED BY THE OWNER.
8. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO NRCS STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
9. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDDED AS SPECIFIED IN THE PLANS. FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS (NRCS CODE 340). ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) : 1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
12. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 12.002, FLORIDA ADMINISTRATIVE CODE.
13. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
14. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE ENVIRONMENTAL RESOURCE PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, AND EXHIBITS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE EXEMPTION APPROVAL MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY WATER MANAGEMENT DISTRICT REPRESENTATIVES.

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE BEST MANAGEMENT PRACTICES (BMP) PLAN AND DETAILS INCLUDED IN THESE CONSTRUCTION PLANS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE BMP PLAN AND BECOME FAMILIAR WITH ITS CONTENTS.
3. THE CONTRACTOR SHALL IMPLEMENT THE BMP'S AS SHOWN. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE JURISDICTIONAL AGENCY OR OWNER.
5. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
6. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING OTHER NECESSARY FACILITIES.
7. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
8. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
10. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGHOUT THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
11. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
12. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDING BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDDED. THESE AREAS SHALL BE SEEDDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS.
15. IF THE ACTION OF VEHICLES TRAVELING OVER GRAVEL CONSTRUCTION ENTRANCES IF ANY, IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE EXISTING/PROPOSED DRAINAGE FEATURES AND ANY SEDIMENT THAT MAY HAVE ACCUMULATED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES ON STOCKPILE AND BORROW AREAS. LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.

MAINTENANCE

- ALL MEASURES IDENTIFIED IN THE BMP PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 5/8" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. ALL PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETEIORATION.
 2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEED AS NEEDED.
 3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
 4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
 5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
 6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS.
 7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATIONS

STRUCTURE FOR WATER CONTROL

SCOPE

CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE STRUCTURE FOR WATER CONTROL AS SHOWN ON THE PLANS. THE STRUCTURE SHALL BE CONSTRUCTED TO WITHSTAND THE DESIGN LOADS AND TO MAINTAIN THE DESIGN FLOW CAPACITY OF THE CHANNEL.

SITE PREPARATION

ALL EXISTING OBSTRUCTIONS SHALL BE REMOVED AND THE AREA SHALL BE PREPARED FOR CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND TO ALL UTILITIES.

CONSTRUCTION

THE STRUCTURE SHALL BE CONSTRUCTED TO THE SPECIFICATIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE DESIGN FLOW CAPACITY OF THE CHANNEL THROUGHOUT CONSTRUCTION. ALL MATERIALS SHALL BE OF THE QUALITY AND TYPE SPECIFIED IN THE PLANS.

BACKFILL

ALL EXCAVATIONS SHALL BE BACKFILLED WITH THE MATERIAL SPECIFIED IN THE PLANS. THE BACKFILL SHALL BE COMPACTED TO THE DENSITY AND MOISTURE CONTENT SPECIFIED IN THE PLANS.

GENERAL NOTES:
 1. THE STRUCTURE SHALL BE CONSTRUCTED TO THE SPECIFICATIONS SHOWN ON THE PLANS.
 2. ALL MATERIALS SHALL BE OF THE QUALITY AND TYPE SPECIFIED IN THE PLANS.
 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND TO ALL UTILITIES.
 4. THE STRUCTURE SHALL BE CONSTRUCTED TO WITHSTAND THE DESIGN LOADS AND TO MAINTAIN THE DESIGN FLOW CAPACITY OF THE CHANNEL.
 5. ALL EXCAVATIONS SHALL BE BACKFILLED WITH THE MATERIAL SPECIFIED IN THE PLANS.
 6. THE BACKFILL SHALL BE COMPACTED TO THE DENSITY AND MOISTURE CONTENT SPECIFIED IN THE PLANS.
 7. THE CONTRACTOR SHALL MAINTAIN THE DESIGN FLOW CAPACITY OF THE CHANNEL THROUGHOUT CONSTRUCTION.
 8. ALL MATERIALS SHALL BE OF THE QUALITY AND TYPE SPECIFIED IN THE PLANS.

NRCS PL. B-200 (REV. 03-03)

| NO. | REVISIONS | DATE | BY |
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 CA 0000098

PROJECT NO. 2017-001
 PROJECT NAME: MANATEE COUNTY WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2
 PROJECT DATE: JUNE 2017
 SCALE: AS SHOWN
 DESIGNED BY: REC
 DRAWN BY: JMW
 CHECKED BY: JMW
 LICENSING PROFESSIONAL: ROBERT B. GONZALEZ, P.E.
 FLORIDA LICENSE NUMBER: 59291
 PROJECT LOCATION: MANATEE COUNTY, FLORIDA

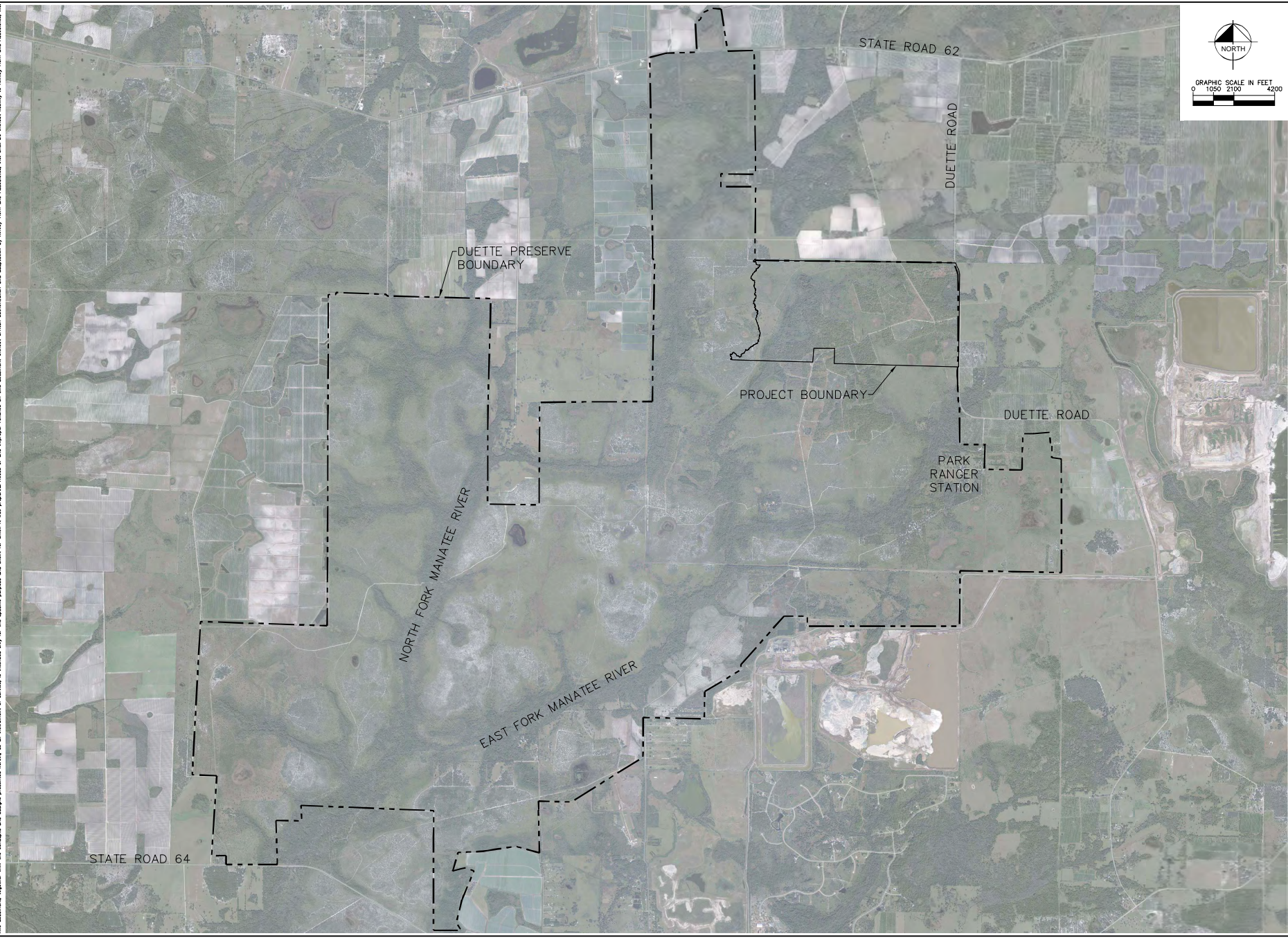
GENERAL NOTES

MANATEE COUNTY LAKE
 MANATEE WATER SUPPLY AND
 WATER QUALITY IMPROVEMENT
 - PHASE 2
 PREPARED FOR
 MANATEE BOARD OF COUNTY COMMISSIONERS
 MANATEE, FLORIDA

SHEET NUMBER
C200

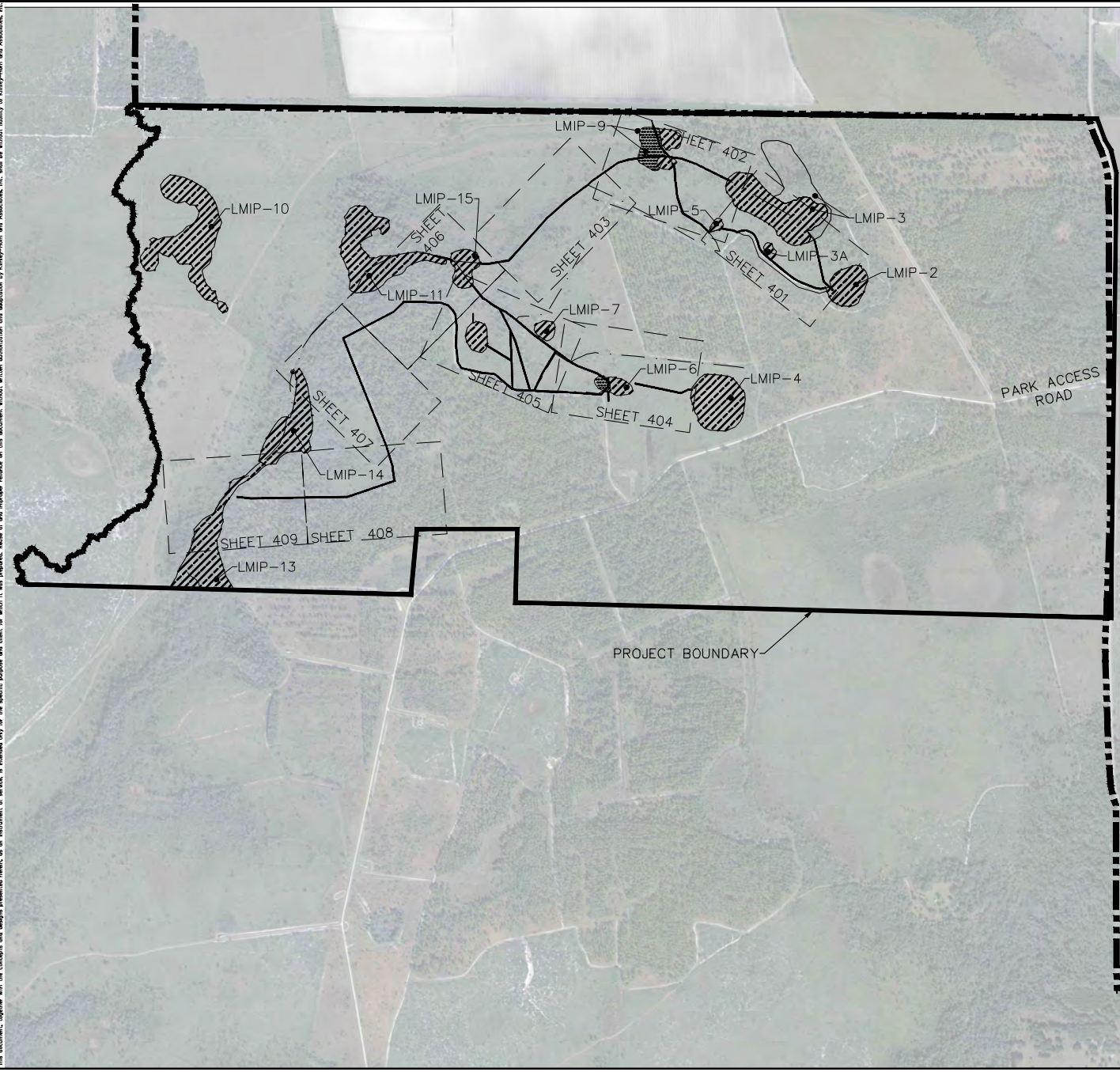
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|--|--|--------------------------------|--|--|--------------------------------|
| SHEET NUMBER C300 | MANATEE COUNTY LAKE MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 PREPARED FOR MANATEE BOARD OF COUNTY COMMISSIONERS MANATEE COUNTY, FLORIDA | OVERALL SITE AERIAL | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"> KIMLEY-HORN PROJECT DATE JUNE 2017 </td> <td style="width: 30%;"> LICENSED PROFESSIONAL ROBERT B. CONNER, P.E. FLORIDA LICENSE NUMBER 95291 </td> <td style="width: 40%;"> No. _____ REVISIONS DATE </td> </tr> </table> | | | KIMLEY-HORN PROJECT DATE JUNE 2017 | LICENSED PROFESSIONAL ROBERT B. CONNER, P.E. FLORIDA LICENSE NUMBER 95291 | No. _____ REVISIONS DATE |
| KIMLEY-HORN PROJECT DATE JUNE 2017 | LICENSED PROFESSIONAL ROBERT B. CONNER, P.E. FLORIDA LICENSE NUMBER 95291 | No. _____ REVISIONS DATE | | | |
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Project: Manatee County, Manatee Water Supply and Drainage Plan, Phase 2 - Overall Grading and Drainage Improvements - Phase 2 - Prepared for Manatee Board of County Commissioners, Manatee County, Florida. Date: July 24, 2017. Scale: AS SHOWN. Drawn by: JMW. Checked by: JMW. Date: 7/24/17. Prepared for: Manatee Board of County Commissioners, Manatee County, Florida. Project No.: C400. Sheet No.: 400.



NORTH

GRAPHIC SCALE IN FEET
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LEGEND

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| | EXISTING DITCH |
| | PROPOSED DITCH FILLING |
| | EXISTING WETLAND LIMITS |
| | HISTORICAL WETLAND LIMITS |
| | EXISTING CHANNEL |
| | DIETTE PRESERVE BOUNDARY |
| | PROJECT AREA BOUNDARY |
| | PROPOSED DITCH BLOCK LOCATION |

NOTES

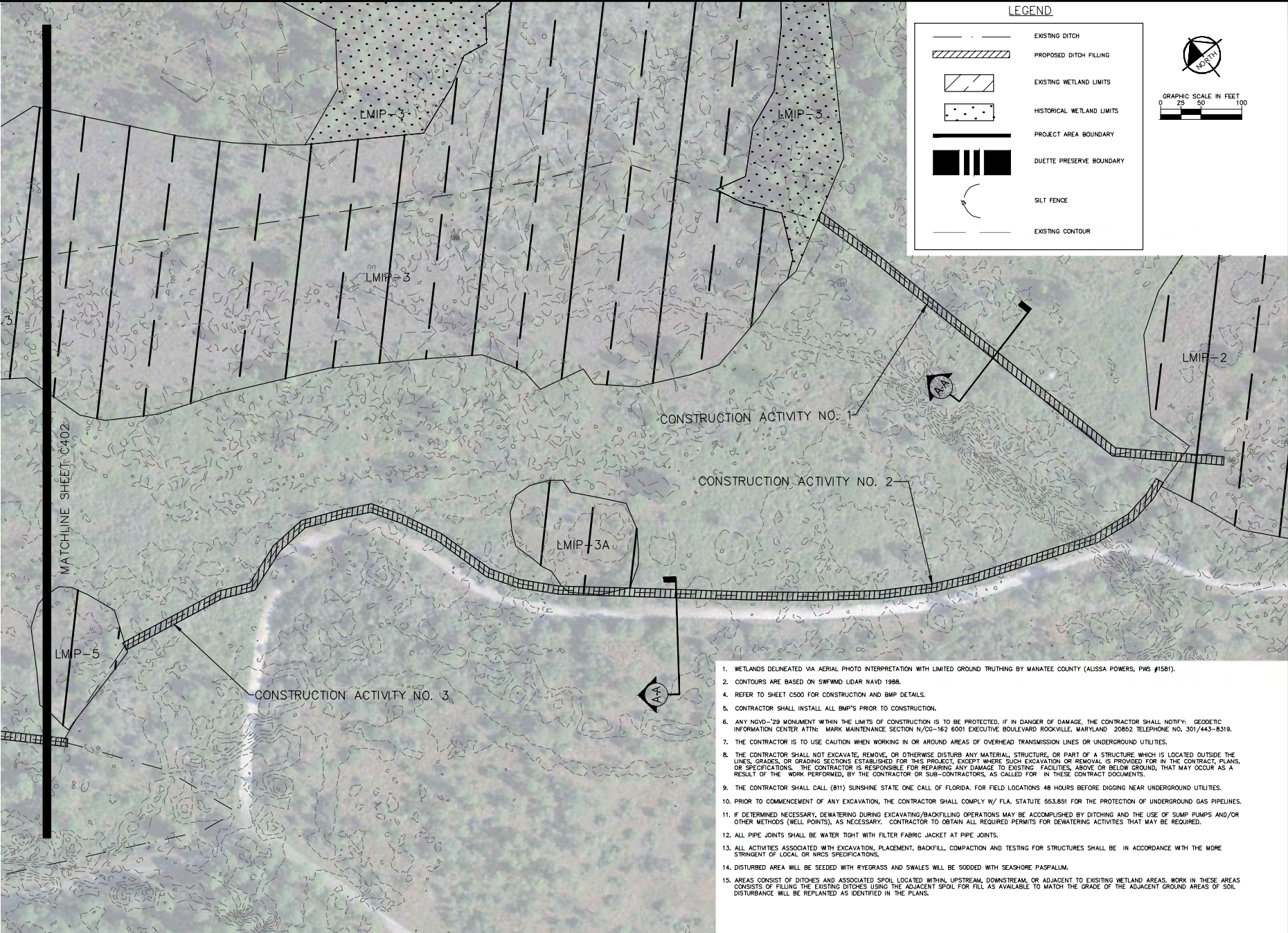
1. WETLANDS DELINEATED VIA AERIAL PHOTO INTERPRETATION WITH LIMITED GROUND TRUTHING BY MANATEE COUNTY (ALISSA POWERS, PWS #1581).

SEASONAL HIGH WATER INDICATORS TABLE

| ID | LATITUDE | LONGITUDE | SHWL(FT) | INDICATOR |
|-----------------|------------------|-----------------|----------|---|
| LMIP-3 SHWL 1 | 27° 33.409' N | 82° 6.858' W | 121.06 | HUMMOCK ON RED MAPLE |
| LMIP-3 SHWL 2 | 27° 33.389' N | 82° 6.822' W | 120.89 | HUMMOCK ON RED MAPLE |
| LMIP-2 SHWL 8 | 27° 33.273' N | 82° 6.726' W | 120.62 | EDGE OF EXTERIOR ZONE, GROUND ELEVATION |
| LMIP-4 SHWL 12 | 27° 33.013' N | 82° 7.026' W | 118.82 | EDGE OF EXTERIOR ZONE, GROUND ELEVATION |
| LMIP-7 SHWL 13 | 27° 33.211' N | 82° 7.365' W | 117.32 | EDGE OF EXTERIOR ZONE, GROUND ELEVATION |
| LMIP-10 SHWL 3 | 27° 33' 50.85" N | 82° 6' 3.87" W | 117.79 | TOP OF SHRUB HUMMOCK |
| LMIP-11 SHWL 9 | 27° 33' 23.61" N | 82° 7' 43.91" W | 116.76 | MOSS COLLAR ON RED MAPLE |
| LMIP-11 SHWL 10 | 27° 33' 23.36" N | 82° 7' 42.57" W | 116.70 | MOSS COLLAR/FERN HUMMOCK ON RED MAPLE |
| LMIP-12 SHWL 4 | 27° 32' 50.93" N | 82° 6' 2.10" W | 113.36 | RED MAPLE ROOT BUTTRESSING |
| LMIP-13 SHWL 5 | 27° 32' 53.50" N | 82° 6' 0.04" W | 113.20 | RED MAPLE ROOT BUTTRESSING/FERN HUMMOCK |
| LMIP-14 SHWL 6 | 27° 33' 1.157" N | 82° 7' 52.97" W | 114.27 | MOSS COLLAR ON RED MAPLE |
| LMIP-16 SHWL 11 | 27° 32.658' N | 82° 6.109' W | 109.99 | EDGE OF WETLAND BY PINE TREE |

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|---|---|--|--|--------------------------------|
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| Manatee County Lake | Manatee Water Supply and Water Quality Improvement - Phase 2 | Overall Grading and Drainage Plan | Manatee Board of County Commissioners | Manatee County, Florida |
| SHEET NUMBER C400 | DATE JUNE 2017 | SCALE AS SHOWN | DRAWN BY JMW | CHECKED BY JMW |
| LICENSED PROFESSIONAL ROBERT B. CONEY, P.E. FLORIDA LICENSE NUMBER 59291 | | Kimley-Horn © 2017 KIMLEY-HORN AND ASSOCIATES, INC. 116 SOUTH KENTUCKY AVENUE, LAKELAND, FL 33801 PHONE: 888-708-1700 WWW.KIMLEY-HORN.COM CA 0000068 | | |
| NO. | REVISIONS | DATE | BY | BY |

Prepared by: M. J. Horn, P.E., Licensed Professional Engineer, No. 155291, State of Florida.
 Checked by: J. M. V. V. V., Licensed Professional Engineer, No. 155291, State of Florida.
 Drawn by: J. M. V. V. V., Licensed Professional Engineer, No. 155291, State of Florida.
 Design by: J. M. V. V. V., Licensed Professional Engineer, No. 155291, State of Florida.
 Scale: AS SHOWN.
 Date: JUNE 2017.
 Project: MANATEE COUNTY LAKE WATER QUALITY IMPROVEMENT - PHASE 2 - GRADING AND DRAINAGE PLAN.
 Location: MANATEE COUNTY, FLORIDA.
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LEGEND

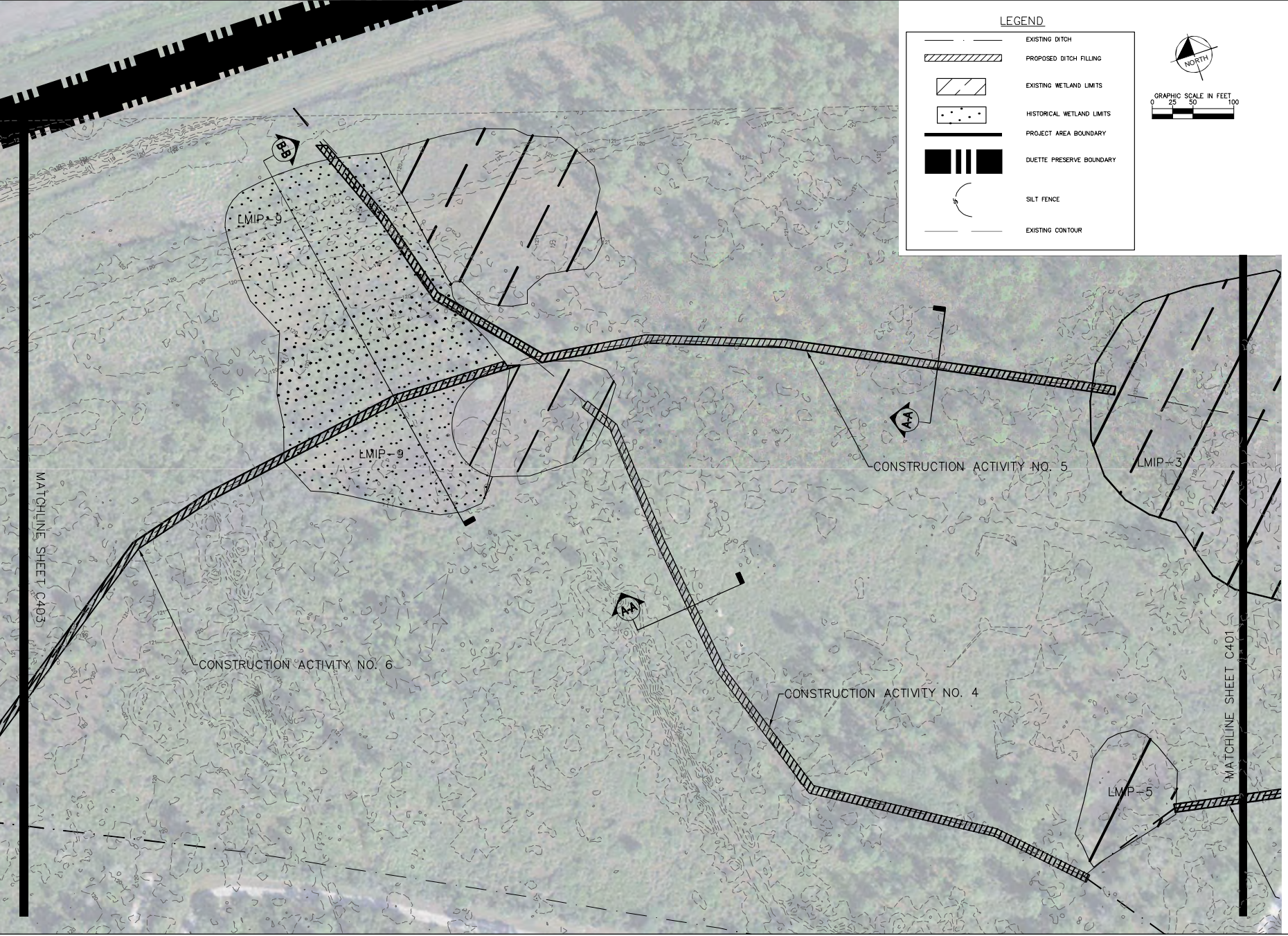
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|--|---------------------------|
| | EXISTING DITCH |
| | PROPOSED DITCH FILLING |
| | EXISTING WETLAND LIMITS |
| | HISTORICAL WETLAND LIMITS |
| | PROJECT AREA BOUNDARY |
| | DUETTE PRESERVE BOUNDARY |
| | SILT FENCE |
| | EXISTING CONTOUR |

GRAPHIC SCALE IN FEET
 0 25 50 100

1. WETLANDS DELINEATED VIA AERIAL PHOTO INTERPRETATION WITH LIMITED GROUND TRUTHING BY MANATEE COUNTY (ALISSA POWERS, PWS #1581).
2. CONTOURS ARE BASED ON SWFWMD LIDAR NAVD 1988.
4. REFER TO SHEET C500 FOR CONSTRUCTION AND BMP DETAILS.
5. CONTRACTOR SHALL INSTALL ALL BMP'S PRIOR TO CONSTRUCTION.
6. ANY NONDRAINAGE MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY: GEODETIC INFORMATION CENTER ATTN: MARK MAINTENANCE SECTION N/CG-162 6001 EXECUTIVE BOULEVARD ROCKVILLE, MARYLAND 20852 TELEPHONE NO. 301/443-8319.
7. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES OR UNDERGROUND UTILITIES.
8. THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE, OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE, OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES, OR GRADING SECTIONS ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATION OR REMOVAL IS PROVIDED FOR IN THE CONTRACT, PLANS, OR SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.
9. THE CONTRACTOR SHALL CALL (811) SUNSHINE STATE ONE CALL OF FLORIDA FOR FIELD LOCATIONS 48 HOURS BEFORE DIGGING NEAR UNDERGROUND UTILITIES.
10. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY W/ FLA. STATUTE 563.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
11. IF DETERMINED NECESSARY, DEWATERING DURING EXCAVATING/BACKFILLING OPERATIONS MAY BE ACCOMPLISHED BY DITCHING AND THE USE OF SUMP PUMPS AND/OR OTHER METHODS (WELL POINTS), AS NECESSARY. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS FOR DEWATERING ACTIVITIES THAT MAY BE REQUIRED.
12. ALL PIPE JOINTS SHALL BE WATER TIGHT WITH FILTER FABRIC JACKET AT PIPE JOINTS.
13. ALL ACTIVITIES ASSOCIATED WITH EXCAVATION, PLACEMENT, BACKFILL, COMPACTION AND TESTING FOR STRUCTURES SHALL BE IN ACCORDANCE WITH THE MORE STRINGENT OF LOCAL OR WRCS SPECIFICATIONS.
14. DISTURBED AREA WILL BE SEEDED WITH RYEGRASS AND SWALES WILL BE SOODED WITH SEASHORE PASPALLUM.
15. AREAS CONSIST OF DITCHES AND ASSOCIATED SPOIL LOCATED WITHIN, UPSTREAM, DOWNSTREAM, OR ADJACENT TO EXISTING WETLAND AREAS. WORK IN THESE AREAS CONSISTS OF FILLING THE EXISTING DITCHES USING THE ADJACENT SPOIL FOR FILL AS AVAILABLE TO MATCH THE GRADE OF THE ADJACENT GROUND AREAS OF SOIL. DISTURBANCE WILL BE REPLANTED AS IDENTIFIED IN THE PLANS.

| MANATEE COUNTY LAKE | | Grading and Drainage Plan | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|-----|-----------|--|--|--|--|--|------|----|--|--|--|--|
| MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 | | | | | | | | | | | | | | | | | | | | |
| SHEET NUMBER C401 | PREPARED FOR MANATEE BOARD OF COUNTY COMMISSIONERS | Kimley-Horn <small>© 2017 KIMLEY-HORN AND ASSOCIATES, INC. 116 SOUTH KENTUCKY AVENUE, LAKELAND, FL 33801 PHONE: 888-708-1000 WWW.KIMLEY-HORN.COM CA 00000686</small> | | | | | | | | | | | | | | | | | | |
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| NO. | REVISIONS | | | | | | | | | | | | | | | | | | | |
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Printed By: wms_ward Sheet: Sheet 2 MANATEE COUNTY WATER PRESERVE WATERSHED IMPROVEMENTS - PHASE 2 Layout: C402 July 24, 2017 03:32:59pm K:\M_C\DW\142146055 - Duette Preserve Hydrologic Study\Phase 2\CAD\CONSTR\C402 SITE PLAN.dwg
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LEGEND

- EXISTING DITCH
- PROPOSED DITCH FILLING
- EXISTING WETLAND LIMITS
- HISTORICAL WETLAND LIMITS
- PROJECT AREA BOUNDARY
- DUETTE PRESERVE BOUNDARY
- SILT FENCE
- EXISTING CONTOUR

GRAPHIC SCALE IN FEET
 0 25 50 100








NORTH

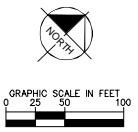
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| MANATEE COUNTY LAKE MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 PREPARED FOR MANATEE BOARD OF COUNTY COMMISSIONERS MANATEE COUNTY, FLORIDA | | GRADING AND DRAINAGE PLAN | | LICENSED PROFESSIONAL ROBERT B. CONERTY, P.E. ROBERT B. CONERTY, P.E. 116 5507th Street, SE Palm Bay, FL 32909 PHONE: 888-704-8702 WWW.KIMLEY-HORN.COM CA 00000000 | |
| SHEET NUMBER C402 | | KHA PROJECT 142146055 | | DATE JUL 24 2017 | |
| | | SCALE AS SHOWN | | DESIGNED BY RBC | |
| | | DRAWN BY JAW | | REVISIONS DATE BY | |


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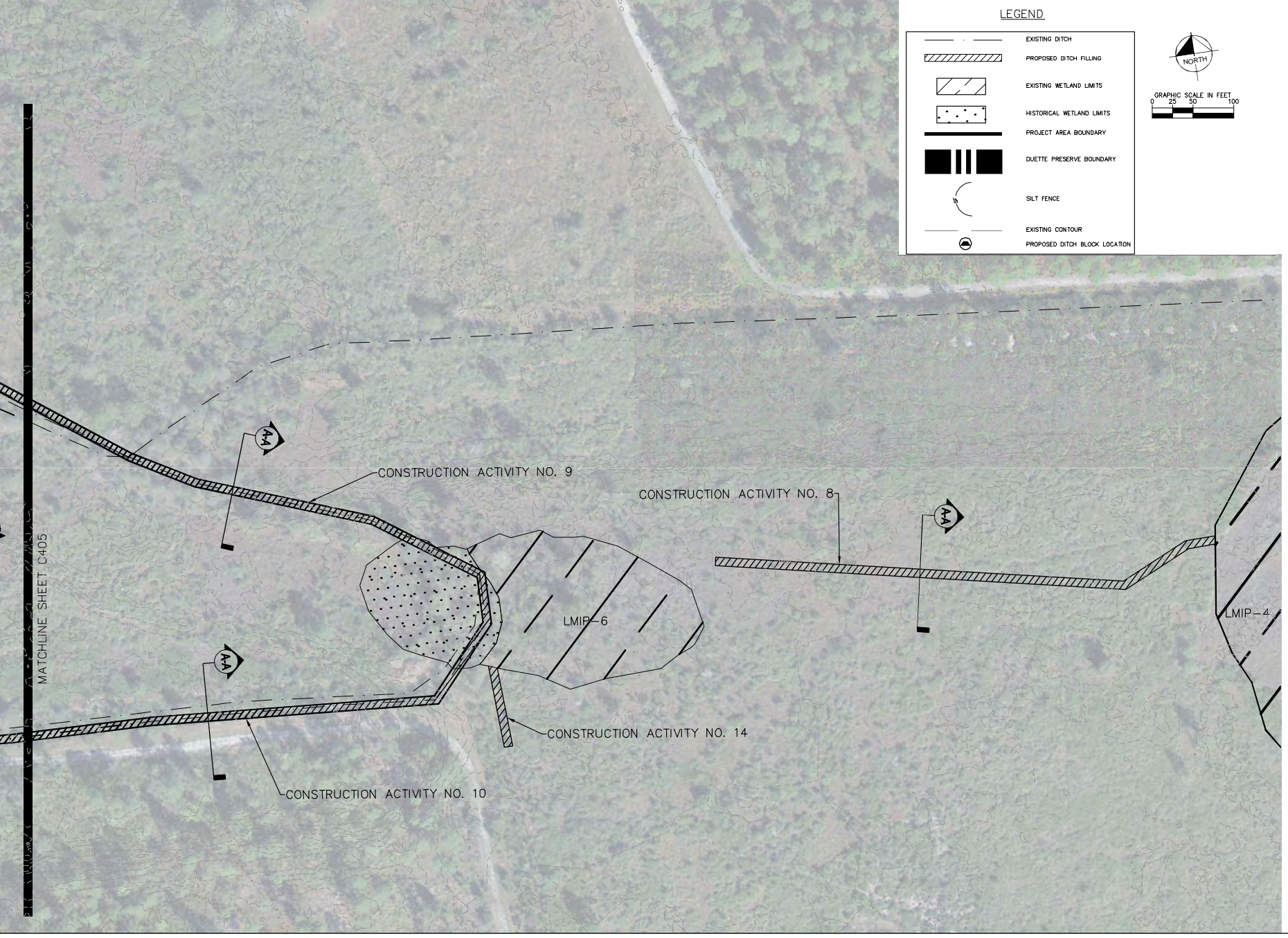
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-  EXISTING DITCH
-  PROPOSED DITCH FILLING
-  EXISTING WETLAND LIMITS
-  PROJECT AREA BOUNDARY
-  DUETTE PRESERVE BOUNDARY
-  SILT FENCE
-  EXISTING CONTOUR



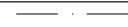
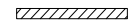
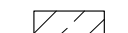
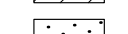
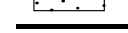


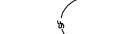

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| MANATEE COUNTY LAKE MANATEE WATER SUPPLY AND WATER QUALITY IMPROVEMENT - PHASE 2 PREPARED FOR MANATEE BOARD OF COUNTY COMMISSIONERS MANATEE COUNTY | | KHA PROJECT 142146055 | | LICENSED PROFESSIONAL | |  © 2017 KIMLEY-HORN AND ASSOCIATES, INC. 116 SOUTH WILSON AVENUE, SUITE 200 TAMPA, FL 33601 PHONE: 813-701-8700 WWW.KIMLEY-HORN.COM CA 03839858 | |
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| | | DESIGNED BY: EBC | | REVISIONS | | DATE | |
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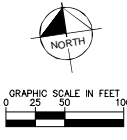
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MATCHLINE SHEET C405

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-  EXISTING DITCH
-  PROPOSED DITCH FILLING
-  EXISTING WETLAND LIMITS
-  HISTORICAL WETLAND LIMITS
-  PROJECT AREA BOUNDARY
-  DUETTE PRESERVE BOUNDARY
-  SILT FENCE
-  EXISTING CONTOUR
-  PROPOSED DITCH BLOCK LOCATION











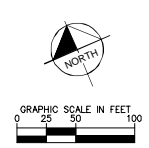
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| SHEET NUMBER C404 | | | | | |

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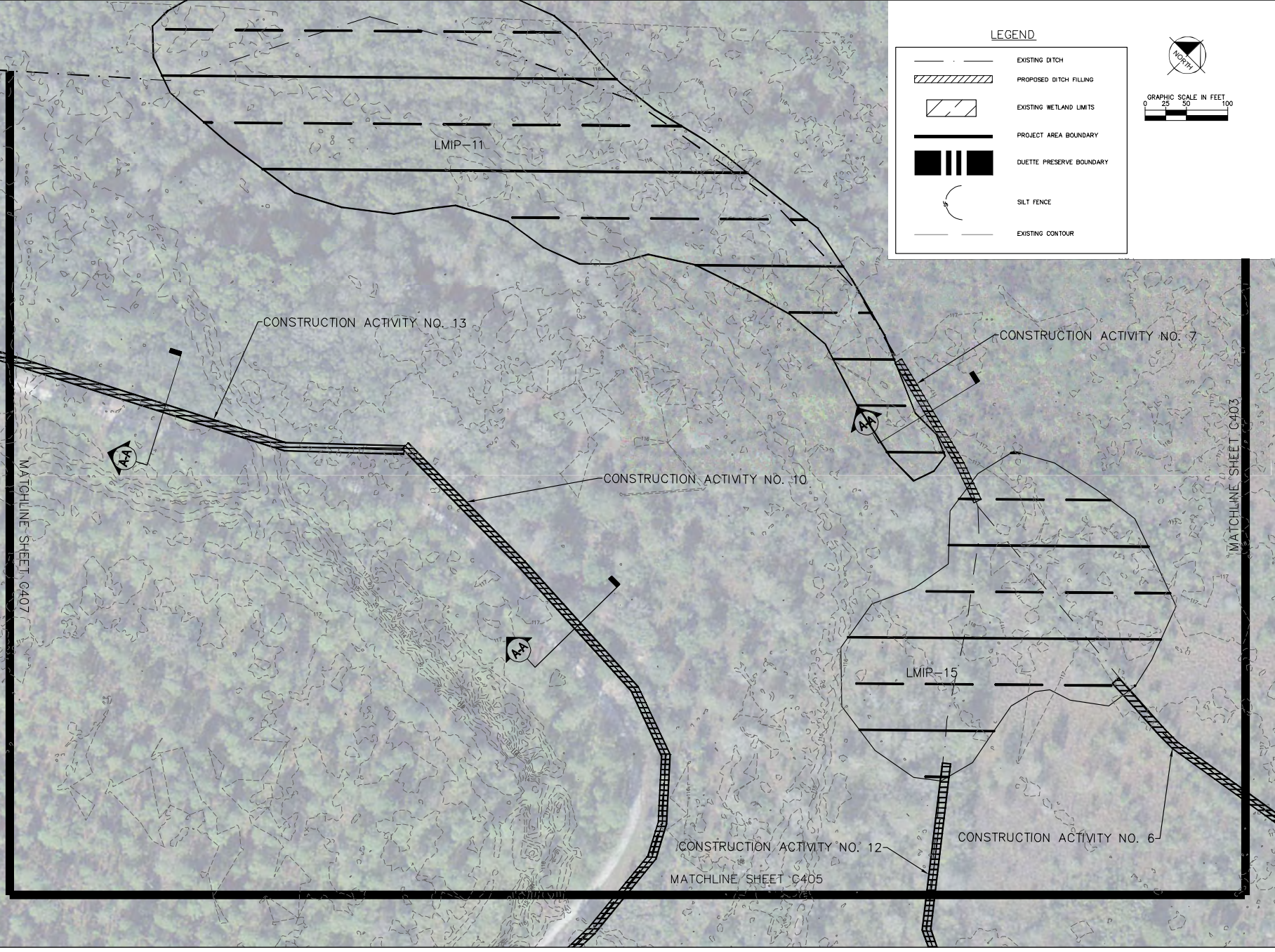
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-  EXISTING DITCH
-  PROPOSED DITCH FILLING
-  EXISTING WETLAND LIMITS
-  PROJECT AREA BOUNDARY
-  DUETTE PRESERVE BOUNDARY
-  SILT FENCE
-  EXISTING CONTOUR
-  PROPOSED DITCH BLOCK LOCATION



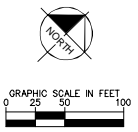
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LEGEND

- EXISTING DITCH
- PROPOSED DITCH FILLING
- EXISTING WETLAND LIMITS
- PROJECT AREA BOUNDARY
- DUETTE PRESERVE BOUNDARY
- SILT FENCE
- EXISTING CONTOUR



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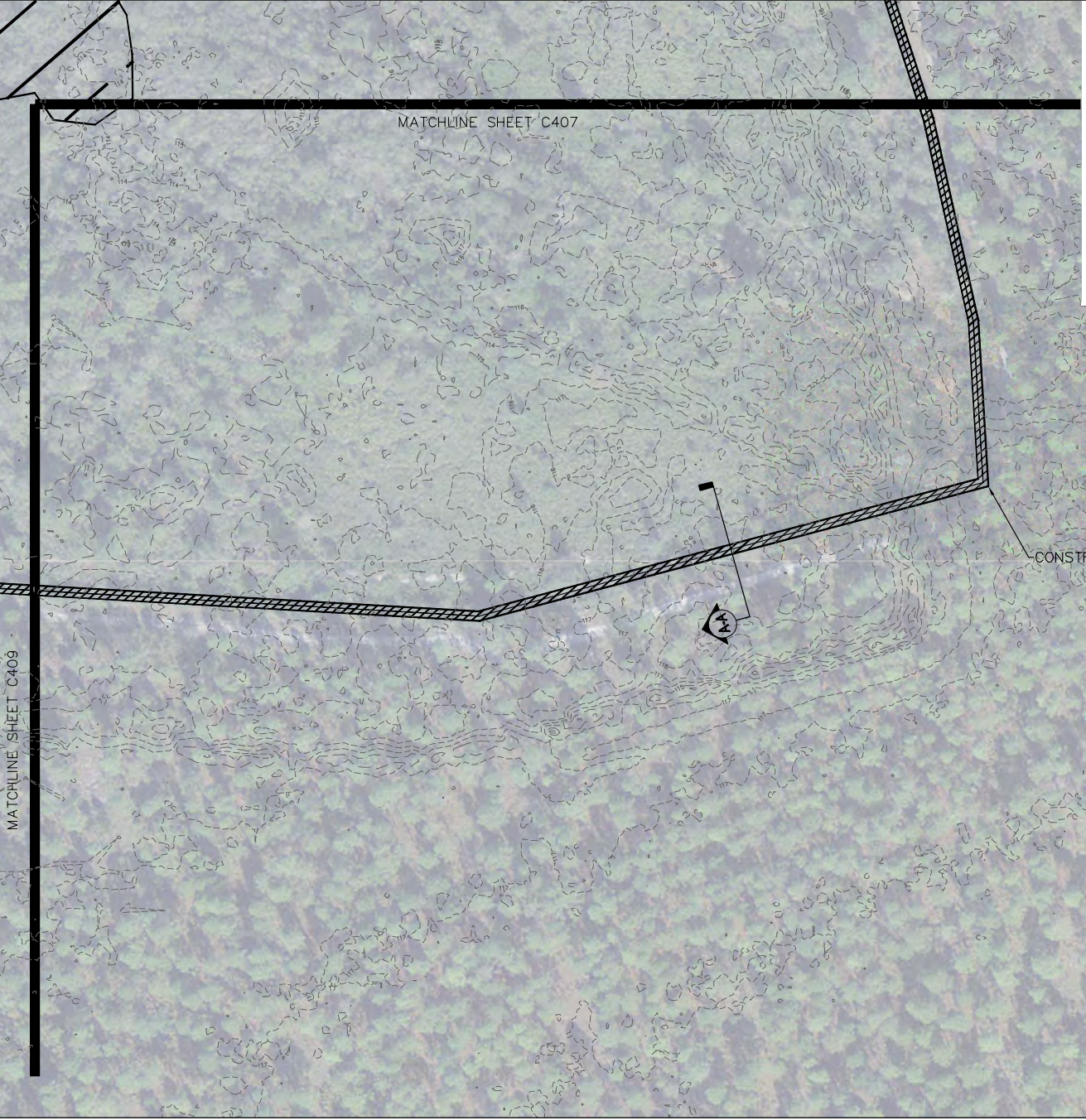


LEGEND

- EXISTING DITCH
- PROPOSED DITCH FILLING
- EXISTING WETLAND LIMITS
- PROJECT AREA BOUNDARY
- DUETTE PRESERVE BOUNDARY
- SILT FENCE
- EXISTING CONTOUR
- PROPOSED DITCH BLOCK LOCATION

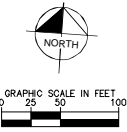
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- EXISTING DITCH
- PROPOSED DITCH FILLING
- EXISTING WETLAND LIMITS
- PROJECT AREA BOUNDARY
- DUETTE PRESERVE BOUNDARY
- SILT FENCE
- EXISTING CONTOUR



MATCHLINE SHEET C409

MATCHLINE SHEET C407

CONSTRUCTION ACTIVITY NO. 13

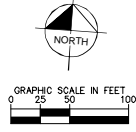
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| KHA PROJECT 142146055 | | DATE JUL 24 2017 | | | |
| SCALE AS SHOWN | | DESIGNED BY RBC | | | |
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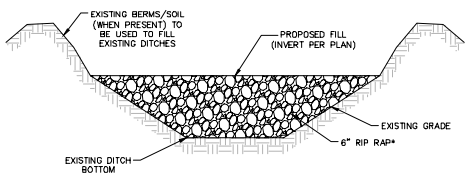
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- EXISTING DITCH
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- EXISTING WETLAND LIMITS
- PROJECT AREA BOUNDARY
- DUETTE PRESERVE BOUNDARY
- SILT FENCE
- EXISTING CONTOUR



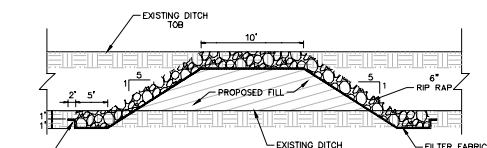
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| | | NO. | REVISIONS |
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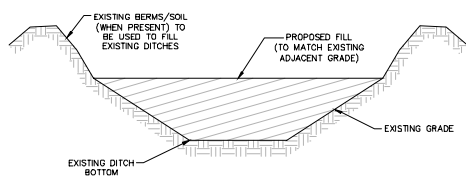
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N.T.S.

* RIP RAP TO BE PLACED ON BOTH THE UPSTREAM AND DOWNSTREAM END OF DITCH FILLING AND DITCH BLOCK PLACEMENT ACTIVITIES.

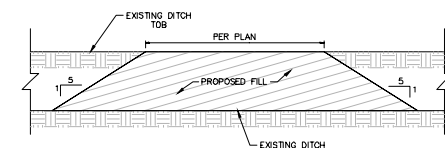


DITCH BLOCK PLACEMENT DETAIL
N.T.S.

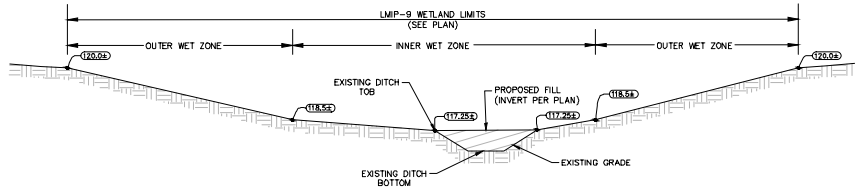
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CROSS-SECTION A-A
DITCH FILL PLACEMENT DETAIL
N.T.S.

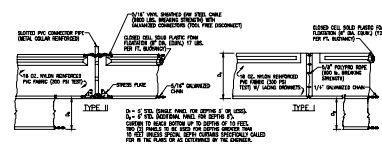


DITCH FILL PLACEMENT DETAIL
N.T.S.



CROSS-SECTION B-B
WETLAND GRADING DETAIL
N.T.S.

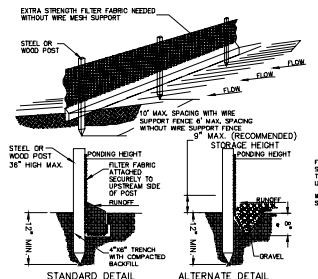
* PLANTING PLAN TO BE PROVIDED BY COUNTY STAFF



FLOATING TURBIDITY BARRIERS
N.T.S.

- NOTE:
- INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 - REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE ECONOMICALLY REUSED.
 - SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONING EFFICIENCY.

SILT FENCE DETAIL



SILT FENCE INSTALLATION DETAIL

EROSION AND SILTATION CONTROL:

- GENERAL: ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. DURING CONSTRUCTION, CLEARED AREAS SHALL BE COVERED BY MULCHES SUCH AS STRAW, HAY AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR HAY BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMIZE DOWNSTREAM SEDIMENTATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHAPED, CLEARED OF SILT, MUD AND DEBRIS, AND RE-SODED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.
- PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS THAT PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES WILL BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.
- SEDIMENT BASINS AND SEDIMENT TRAPPING DEVICES: PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT TO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTH STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, SMITH FILTERS, DAMS OR DICES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE YEAR OF INSTALLATION.
- ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE REGULARLY INSPECTED AND MAINTAINED, (ESPECIALLY AFTER EACH RAINFALL) AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO RAIN SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM.
- APPLICATION RATES AND METHODS FOR USE OF FERTILIZERS AND PESTICIDES AT THE CONSTRUCTION SITE SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION SUCH THAT DISCHARGES WILL NOT CAUSE OR CONTRIBUTE TO VIOLATION OF STATE SURFACE OR GROUNDWATER QUALITY STANDARDS.
- OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED BY CONTRACTOR.

SECTION 1 GENERAL EROSION CONTROL:

- GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLURRY FAILURE. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.
- CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY USED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY AND/OR OVERSEEDED AND SUFFICIENTLY WATERED TO STABILIZE THE TEMPORARY GROUND COVER.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

- SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.
- WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY CHANNELS.
- EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY, WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NECESSARY BY REFERENCING WITH THE FOLLOWING:
 - IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
 - STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FOOT NOTED 100. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.
- HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LIQUIDS FROM ENTERING SITE DRAINAGE FEEDLINES INCLUDING DOWNSTREAM COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DICES, HAY BALES OR SILT SCREENS AROUND, AND SEPARATELY WITH SUCH AREAS TO CONTAIN SPILLS OF OIL, GREASE OR LIQUIDS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE ADSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.
- SILT BARRIERS ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.
- PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE BY INSTALLING A TEMPORARY SEDIMENT SUMP AS REQUIRED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

DEMOLITION NOTES (IF NECESSARY):

- CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION DRAWINGS.
- EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.
- PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN DURING TO BE REMOVED.
- RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
- REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
- LOCATE EXISTING ABOVE-GROUND AND UNDERGROUND UTILITIES IN AREAS OF WORK. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION OPERATION.
- SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, NOTIFY PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
- DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES TO BE REMOVED.
- PROTECT STRUCTURES AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.
- CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. FURTHERMORE, CONTRACTOR SHALL PROVIDE TO THE ENGINEER A PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS NOTED ON PLANS.

DEWATERING NOTES (IF NECESSARY):

- DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE A CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE DONE IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE WETLANDS PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.
- UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO ON-SITE WETLANDS.
- DURING EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER IF PRESENT. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.
- IF CONTRACTOR ENCOUNTERS SILT/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH A CHEMICAL ADDITIVE SUCH AS ALUM IN ORDER TO PROMOTE THE COAGULATION AND SETTLEMENT OF THE PARTICLES FOR THE WATER TO BECOME LESS TURBID. IF TURBID WATER IS ENCOUNTERED DURING EXCAVATION OF THE POND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBIDITY AND ALLOW DISCHARGE THAT MEETS AFTER QUALITY STANDARDS.

BEST MANAGEMENT PRACTICES:

- THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF LOCAL, STATE, AND FEDERAL REGULATIONS. THE PLAN ADDRESSES THE FOLLOWING AREAS:
- GENERAL EROSION CONTROL.
 - PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
 - CONTROL OF WIND EROSION.
- THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BARRIERS. THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FOOT INDEX #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

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Kimley Horn

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| KWA PROJECT | LICENSER PROFESSIONAL |
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| 12-21-0055 | ROBERT E. CORLEY, P.E. |
| JUNE 2017 | FLORIDA LICENSE NUMBER: 59231 |
| SCALE AS SHOWN | FLORIDA LICENSE NUMBER: 59231 |
| DESIGNED BY: JACOB L. BROWN | DATE: _____ |
| DRAWN BY: JACOB L. BROWN | DATE: _____ |
| CHECKED BY: JACOB L. BROWN | DATE: _____ |

TYPICAL SECTIONS

MANATEE COUNTY LAKE
 MANATEE WATER SUPPLY AND
 WATER QUALITY IMPROVEMENT
 - PHASE 2
 PREPARED FOR
 MANATEE BOARD OF COUNTY COMMISSIONERS
 MANATEE COUNTY, FLORIDA